



CATALOGUE 2019-2020  
OPTOELECTRONIC COMPONENTS

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**EVERLIGHT**

# EVERLIGHT

THE SOURCE OF LIGHT

EVERLIGHT Electronics Co., Ltd. was founded in 1983 in Taipei, Taiwan led by Chairman Robert Yeh, EVERLIGHT Electronics Co. has over 35 years of R&D experience for reliable capability. With immediate service and an excellent brand reputation, EVERLIGHT has taken top five in the competitive LED market. Our products are manufactured and packed in-house to guarantee maximum quality and service.

EVERLIGHT provides a diverse product portfolio consisting of High Power LEDs, SMD LEDs, Lamps, Lighting Components, LED Lighting Modules, Digital Displays, Opto-couplers and Infrared Components for various applications. Today, EVERLIGHT is a global company with over 6,400 employees based in China, Hong Kong, Japan, Korea, Singapore, Malaysia, India, Germany and U.S.A.

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3004	173	15-21/BHC-AN1P2/2T	101	17-215/G6C-BM1N2L/3T	100
3006	172	15-21/G6C-BK1L2VY/2T	101	17-215/G6C-FN2P2B/3T	100
99-616	171	15-21/G6C-FM1N2B/2T	101	17-215/R6C-AQ1R2B/3T	100
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1259-7UYSYGW/S530-A3	124	17-21/S2C-AN1P2B/3T	99	19-213/G6C-FN2Q1L/3T	97
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1383SYGD/S530-E2	128	17-21/T1D-CP2R1TY/3T	99	19-213/GHC-YP1Q2QY/3T	97
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15-11/BHC-ZL2N1QY/2T	100	17-21/Y2C-CN1P2B/3T	99	19-213/R6C-AN1P2/3T	97
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19-213/S2C-AN1P2B/3T	97	204-10UYD/S530-A3	121	333/V7C1-BVXA/MS	152
19-213/S3C-AN2P2B/3T	97	204-10UYOC/S530-A3	121	333/Y5C1-ATWB/MS	152
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19-213/Y2C-AP1Q2B/3T	97	209SURSYPGW/S530-A3	122	333-2SUBC/C470/S400-A6	127
19-213/Y2C-CN1P2/3T	97	22-21/BHC-AN1P2/2C	110	333-2SUGC/S400-A5	127
19-213/Y2C-CP1Q2L/3T	97	22-21/GHC-YR1S2/2C	110	333-2SURC/S400-A8	127
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19-218/BHC-ZL1M2QY/3T	98	264-7SDRC/S530-A3	122	339-1UYUBW/S530-A4	128
19-218/GHC-YR1S2M/3T	98	264-7SUGC/S400-A5	122	3474BABR	150
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19-218/R6C-FM2P1B7Y/3T	98	264-7SYGC/S530-E3	122	3474BARR	150
19-218/T1D-CQ2R2TY/3T	98	264-7UYC/S400-A9	122	3474BKBR/MS	150
19-219/T3D-AQ2R2TY/3T	98	264-7UYOC/S530-A3	122	3474BKGR/MS	150
19-219/T7D-AV1W1E/3T	98	27-21/BHC-AN1P2/3C	110	3474BKRR/MS	150
19-219/Y5C-AM1N2VY/3T	98	27-21/BHC-AP1Q2/3C	110	3474DKBR/MS	150
19-22/G6R6C-A31/2T	104	27-21/GHC-YR1S2M/3C	110	3474DKGR/MS	150
19-22/R6BHC-B01/2T	104	27-21/R6C-AP1Q2B/3C	110	3474DKRR/MS	150
19-22/R6G6C-A01/2T	104	27-21/T1D-ANPHY/3C	110	37-21S-NK12C-H505M41N42336Z6-2T-FS	84
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19-22/Y2G6C-A14/2T	104	27-21/T3D-AP2Q2HY/3C	110	383-2SDRC/S530-A3	128
19-223/G6S2C-A01/2T	105	27-21/Y2C-CPQB/3D	110	383-2SUBC/C470/S400-A6	128
19-223/R6BHC-A05/2T	105	28-21SDRC/S530-A3/TR8	90	383-2SUGC/S400-A4	128
19-223/R6G6C-A01/2T	105	28-21SURC/S530-A2/TR8	90	383-2SURC/S530-A3	128
19-223/R7BHC-A30/2T	105	28-21UYC/S530-A3/TR8	90	383-2SYGC/S530-E2	128
19-223/R7G6C-A01/2T	105	3014U	174	383-2USOC/S530-A6	128
19-223/S2BHC-A01/2T	105	3014U	174	383-2UYC/S530-A3	128
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19-223/Y2G6C-A01/2T	105	313-2SUBC/C470/S400-A4	126	414-10UYD/S530-A3	130
19-226/R6BHC-B01/2T	105	313-2SYGC/S530-E2	126	4204-10SURC/S530-A3	125
19-226/R6G7C-B02/2T	105	313-2UYD/S530-A3	126	4204-10SYGC/S530-E4	125
19-226/R6GHC-A03/2T	105	323-2SDRD/S530-A3	126	42-21/BHC-AUW/1T	92
19-237/R6GHBHC-A04/2T	106	323-2SURD/S530-A3	126	42-21A/BHC-ZV1W2N/1T	92
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19-337/R6GHBHC-A01/2T	107	3294-15SUGC/S400-A6	125	423-2SURC/S530-A3	130
204-10SDRD/S530-A3	121	3294-15SURC/S400-A7	125	423-2UYC/S530-A6	130
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IR91-21C/TR10	189	IRM-V5xxJ2	218	PD333-3C/H0/L2	197
IR91-21C/TR7	189	IRM-V5xxM	218	PD333-3C/L793	197
IR92-01C/L491/2R	188	IRM-V5xxM2	218	PD42-21B/TR8	202
IR92-01C/L735/2R	188	IRM-V5xxM3	218	PD42-21C/TR8	202
IR928-6C-F	196	IRM-V5xxT	218	PD438B	199
IR95-21C/L491/TR7	189	IRM-V8xxJ	219	PD438B/L1	199
IR95-21C/TR7	189	IRM-V8xxJ2	219	PD438B/S46	199
IR968-8C	196	IRM-V8xxJ2-C	219	PD438C	198
IR-C19D-N90/L562-P03/TR	189	IRM-V8XXJ8	219	PD438C/S46	198
IR-C19-N/L482-P01/TR	189	IRM-V8XXJ9	219	PD44-37C/L753/TR8	202
IRM-36xxJ2	214	IRM-V8xxM	219	PD51-40C/L665/TR8	202
IRM-36xxJ7	214	IRM-V8xxM2	219	PD51-40C/TR8	202
IRM-36xxJ8	214	IRM-V8xxM3	219	PD5443-3B/L2	198
IRM-36xxJ9	214	IRM-V8xxM3-C	219	PD60-48C/TR8	204
IRM-36xxM	214	IRM-V8xxT	219	PD638B	199
IRM-36xxM2	214	IRM-V8XXZ3	219	PD70-01B/TR10	203
IRM-36xxM2-X	214	IRR15-22C/L491/TR8	181	PD70-01B/TR7	201
IRM-36xxM3	214	IRR60-48C/L661/TR8	182	PD70-01C/L469/TR7	201
IRM-36xxM3-X	214	IRR60-48C/TR8	182	PD70-01C/TR10	203
IRM-36xxM6	214	IRRG25-16C/L491/TR8	182	PD70-01C/TR7	201
IRM-36xxM-X	214	ITR1201SR10AR/TR	240	PD83-01B/L458/TR8	203
IRM-36xxT	214	ITR1203DT50A/TB	243	PD95-21B/TR10	204
IRM-36xxT-X	214	ITR1205ST11A/TR	243	PIR15-21C/TR8	178
IRM-36xxZ3	214	ITR1502SR40A/TR8	239	PLR135	224
IRM-37xxM	217	ITR1504SR10A/TR	239	PLR135/T10	227
IRM-37xxM2	217	ITR20001/T	242	PLR135/T2	226
IRM-37xxM3	217	ITR20002	242	PLR135/T7	226
IRM-37xxT	217	ITR20005-F	247	PLR135/T8	226
IRM-66xxJ	215	ITR20403	247	PLR135/T9	227
IRM-66XXJ2	215	ITR20501	242	PLR137	224
IRM-66xxM	215	ITR8010	244	PLR155	224
IRM-66xxM2	215	ITR8102	243	PLR162	225
IRM-66xxM3	215	ITR8104	244	PLR162M	225
IRM-66xxT	215	ITR8105	244	PLR233	224
IRM-86xxM2	216	ITR8307	240	PLR237	224
IRM-88xxM3	217	ITR8307/F43	239	PLR253	224
IRM-H2XXJ2	220	ITR8307/L24	240	PLR262	225
IRM-H2xxM2	220	ITR8307/L24/F43	239	PLT132	228
IRM-H2xxM3	220	ITR8307/L24/TR8	240	PLT133	228
IRM-H2xxT	220	ITR8307/TR8	240	PLT133/T10B	230
IRM-H3xxJ	220	ITR8402-F-A	245	PLT133/T10W	230
IRM-H3XXJ8	220	ITR9606-F	245	PLT133/T2	230
IRM-H3xxM3	220	ITR9608-F	245	PLT133/T8B	231
IRM-H5xxM	221	ITR9702-F	246	PLT133/T9	230
IRM-H5xxM3	221	ITR9707	246	PLT137	228
IRM-H5xxT	221	ITR9809-F/T	246	PLT232/L5	228
IRM-H6xxJ7	221	ITR9813	247	PLT237	228
IRM-H6xxM	221	ITR9904	241	PLT262	229
IRM-H6xxM3	221	ITR9908	241	PLT262M	229
IRM-H6xxT	221	ITR9909	241	PLT272/L5	229
IRM-H8xxJ	222	MCT2E	254	PM-8D23-20-DF8/TR8	237
IRM-H8xxJ2-C	222	PD12-206B/L512/TR8	199	PT11-21C/L41/TR8	209
IRM-H8XXJ8	222	PD12-21B/L458/TR8	200	PT12-206B/L505/4G	209

## INFRARED LED, SENSORS, COUPLERS

PT12-21B/TR8	209		
PT12-21C/TR8	209		
PT1504-6B	207		
PT15-21B/TR8	209		
PT15-21C/TR8	209		
PT17-21B/L41/TR8	210		
PT17-21C/L41/TR8	210		
PT19-21B/L41/TR8	210		
PT19-21C/L41/TR8	210		
PT204-6B	205		
PT204-6C	205		
PT2559B/L2/H2-F	208		
PT2559B/L2-F	208		
PT26-21B/TR8	210		
PT26-21C/TR8	210		
PT26-51B/TR8	211		
PT26-71B/TR8	211		
PT28-21B/TR8	211		
PT333-3B	206		
PT333-3C	205		
PT334-6B	206		
PT334-6C	206		
PT42-21B/TR8	211		
PT534-6B	207		
PT5529B/L2/H2-F	208		
PT5529B/L2-F	208		
PT57-21B/TR8	212		
PT67-21B/C14/TR8	212		
PT67-21C/L41/TR8	212		
PT908-7B-F	207		
PT908-7C-F	207		
PT91-21B	213		
PT91-21B/TR10	213		
PT91-21B/TR7	213		
PT91-21B/TR9	213		
PT91-21C	213		
PT91-21C/TR10	213		
PT91-21C/TR7	213		
PT928-6B-F	208		
PT928-6C-F	208		
PT968-8C	208		
SIR11-21C/L294/TR8	178		
SIR12-21C/TR8	183		
SIR19-21C/TR8	179		
SIR19-315C/TR8	180		
SIR204-A	190		
SIR204C	190		
SIR234	190		
SIR333-A	191		
SIR383C	191		
SIR67-21C/TR8	186		
SIR91-21C/TR7	189		
SIR95-21C/TR10	189		
TIL111	254		
TIL113	261		
TIL117	254		



# CONDITIONS OF RoHS

From July 1st, 2006, RoHS requires that all electrical equipment should not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs) or poly brominated diphenyl ethers (PBDEs), and the elements are restricted to certain amount (such as mercury in a wound lighting tube <5 mg, lead in CRT glass, soldering tin, etc.). Before the date every member of European Union must obey of environment on chemical regulation.



- According to RoHS part, the norm of restrict and limit used substance adopted by EVERLIGHT.

Name	Description	Criteria
Cadmium	Cadmium and its compounds must not be present in parts, components, materials or products. Cadmium and its compounds must not used as stabilizers, coloring agent or as a surface coating treatment in parts, components, materials or products.	< 5 ppm (Plastics) < 75 ppm (Metals)
Lead restrictions	Lead and/or lead compounds shall not be present in hardware components or parts, however, except solder, electrical components and interconnect materials. Lead carbonates and sulfates must not be used in any paint applied to parts, component, or products.	< 100 ppm (Plastics) < 1000 ppm (Others)
Mercury restrictions	Mercury must not be contained in any part, material, components or product, including, but not limited to switches, relays or electrical contacts. This restriction does not apply to lamps with less than 10 mg if mercury.	< 5 ppm
Hexavalent chromium (chromium VI) and hexavalent chromium compounds	Hexavalent chromium (chromium VI) and hexavalent chromium compounds must not be present in parts, components, materials or products.	< 2 ppm
Polybrominated Biphenyls (PBBs)	Plastics parts, components, materials and products must not contain Polybrominated Biphenyls as flame retardants, specific PBBs, but are not limited to those listed in attachment item.	< 5 ppm
Polybrominated Diphenyl Ethers (PBDEs)	Plastic parts, components, materials and products must not contain Polybrominated Diphenyl Ethers, known as flame retardants, specific PBBEs, including, but are not limited to, those listed in attachment item.	< 5 ppm

Compliant with the following condition :

- Please visit EVERLIGHT website for more updated information about third party test reports and RoHS declarations.  
( [www.everlight.com](http://www.everlight.com) )



# APPLICATION NOTICE

Since we are continuously improving all of our products, the information listed in this Catalogue, which includes specifications, characteristics, data, materials used, structure, etc., are subject to change without prior notice. It is necessary that you request the newest specification sheet from EVERLIGHT when you place any inquiry or purchase order.

Please carefully read the specification sheet, and confirm your acceptance of the content. EVERLIGHT does not accept any liabilities for damages occurred due to the customer's lack of confirming the newest product specification.

It is important to strictly follow the maximum limit and other important instructions listed on the specifications sheet when using EVERLIGHT's products. The following is a list of special notes for products used in specific applications. It is recommended that customers read the instructions carefully before installing the products. Again, EVERLIGHT does not accept any liabilities for any improper use of EVERLIGHT's product or failure to follow the instructions listed herein:

Special Instruction:

1. Products listed in this Catalogue are designed primarily for the application listed below:  
A : Calculators  
B : Measurement equipment  
C : AV machines  
D : QA machines  
E : Operating machines  
F : Consumer electronics  
G : Telecommunications

While products meet the application listed above, additional attention is required when products are to be utilized in the instruments listed under Special Instruction Notes 2 and 3.

2. When high reliability and safety concerns are required, it is very important that the design be made to focus on safety and long term reliability. Special care should be given to assure that EVERLIGHT's products integrate and function properly with all other parts of the instrument. Instruments fall into these categories include:

- A : Instruments attached to transportation tools (aircraft, train, automobile)
- B : Traffic signs
- C : Gas leaking detectors and gas shutters
- D : Fire detectors
- E : Other safety detectors

3. When extremely high reliability and safety concerns are required, it is necessary that you contact EVERLIGHT for additional information before use. Instruments fall into these categories include:

- A : Aerospace instruments
- B : Telecommunication tools (main line)
- C : Nuclear weapon controls
- D : Medical instruments

4. Should you have any additional questions, please contact EVERLIGHT for details.

本資料所記載之製品的規格、特性、DATA、使用原料、構造...等，有時為了改良製品，無法事前通知，而逕行與予變更。因此請務必使用最新的規格書，並請針對內容加以確認。若因未確認規格書，導致使用次製品之機器或其他應用產品發生瑕疵時，敝公司將不負此責任。

使用本資料所記載之製品時，請遵守規格書所記載之絕對最大定格，使用上之注意事項，以及下列之注意點，若因不遵守規格書所記載之絕對最大定格，使用上之注意事項，以及下述之注意點，而導致發生損害問題時，敝公司將不負此責任。

注意項目：

1. 本資料所記載之製品，原則是為了下述之用途而製造出來的產品  
A: 電算機  
B: OA機器  
C: 通信機器  
D: 計測機器  
E: 工作機器  
F: AV機器  
G: 家電製品

若雖合乎上述用途，但是屬於下述2或3所記載之機器時，則需遵守個別產品之使用注意事項。

2. 若本資料所記載之製品用於下述講求高信賴性與安全性之用途時，因牽涉到機能與精度方面，為了維持這類機器的信賴性與安全性，請務必注重安全設計與長期性設計，並且需考慮整體機構間的關係，依機器整體之安全設計來使用。  
A: 運送機器(飛機、火車、汽車)與控制安全性等相關之產品  
B: 交通信號機  
C: 瓦斯漏氣檢測關閉機  
D: 防災裝置  
E: 各種安全裝置
3. 若本資料所記載之製品用於下述講求高信賴性與安全性之用途時，因牽涉到機能與精度方面，請事先與敝公司聯絡。  
A: 太空機器(航太儀器)  
B: 通信機器(幹線)  
C: 原子彈控制機器  
D: 醫療機器
4. 涉及上述注意事項之任何一項時，如有疑問，請和敝公司業務人員聯絡。

# TECHNICAL DATA

HIGH POWER LED ( SHUEN 炫, SHWO 爍, SHWO (D) 爍 (D), SHWO (N) 爍 (N), HV, JU 炬, XUAN 煊, A22, B05)

## CIE BINNING RANKS

### Cool-White Bin Coordinates

5000K				
Bin	50K-1	50K-2	50K-3	50K-4
CIE X	0.346	0.338	0.337	0.345
	0.345	0.337	0.337	0.344
	0.353	0.345	0.344	0.352
	0.355	0.346	0.345	0.353
CIE Y	0.369	0.362	0.349	0.356
	0.356	0.349	0.337	0.343
	0.362	0.356	0.343	0.349
	0.376	0.369	0.356	0.362

5700K				
Bin	57K-1	57K-2	57K-3	57K-4
CIE X	0.329	0.321	0.321	0.329
	0.329	0.321	0.322	0.329
	0.337	0.329	0.329	0.337
	0.338	0.329	0.329	0.337
CIE Y	0.354	0.346	0.335	0.342
	0.342	0.335	0.324	0.331
	0.349	0.342	0.331	0.337
	0.362	0.354	0.342	0.349

6500K				
Bin	65K-1	65K-2	65K-3	65K-4
CIE X	0.312	0.303	0.305	0.313
	0.313	0.305	0.307	0.315
	0.321	0.313	0.315	0.322
	0.321	0.312	0.313	0.321
CIE Y	0.339	0.330	0.321	0.329
	0.329	0.321	0.311	0.319
	0.337	0.329	0.319	0.326
	0.348	0.339	0.329	0.337

### Warm-White Bin Coordinates

2700K				
Bin	27K-1	27K-2	27K-3	27K-4
CIE X	0.469	0.456	0.447	0.459
	0.459	0.447	0.437	0.448
	0.470	0.459	0.448	0.459
	0.481	0.469	0.459	0.470
CIE Y	0.429	0.426	0.408	0.410
	0.410	0.408	0.389	0.392
	0.413	0.410	0.392	0.394
	0.432	0.429	0.410	0.413

3000K				
Bin	30K-1	30K-2	30K-3	30K-4
CIE X	0.443	0.430	0.422	0.435
	0.435	0.422	0.415	0.426
	0.447	0.435	0.426	0.437
	0.456	0.443	0.435	0.447
CIE Y	0.421	0.417	0.399	0.403
	0.403	0.399	0.381	0.385
	0.408	0.403	0.385	0.389
	0.426	0.421	0.403	0.408

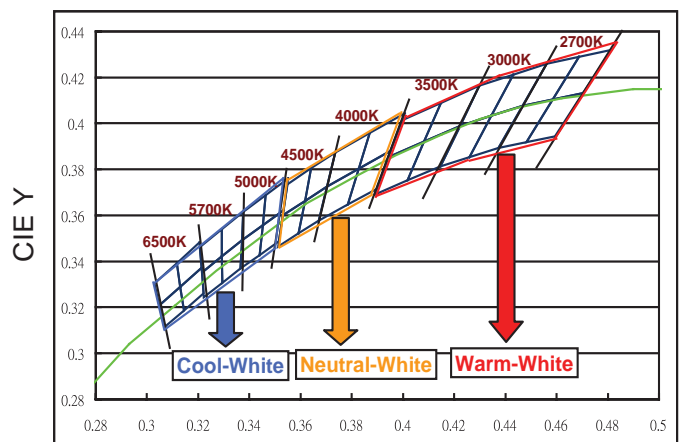
3500K				
Bin	35K-1	35K-2	35K-3	35K-4
CIE X	0.415	0.400	0.394	0.408
	0.408	0.394	0.389	0.402
	0.422	0.408	0.402	0.415
	0.430	0.415	0.408	0.422
CIE Y	0.409	0.402	0.385	0.392
	0.392	0.385	0.369	0.375
	0.399	0.392	0.375	0.381
	0.417	0.409	0.392	0.399

### Natural-White Bin Coordinates

4000K				
Bin	40K-1	40K-2	40K-3	40K-4
CIE X	0.387	0.374	0.370	0.383
	0.383	0.370	0.367	0.378
	0.395	0.383	0.378	0.390
	0.401	0.387	0.383	0.395
CIE Y	0.396	0.387	0.373	0.380
	0.380	0.373	0.358	0.365
	0.388	0.380	0.365	0.372
	0.404	0.396	0.380	0.388

4500K				
Bin	45K-1	45K-2	45K-3	45K-4
CIE X	0.364	0.355	0.353	0.362
	0.362	0.353	0.351	0.359
	0.370	0.362	0.359	0.367
	0.374	0.364	0.362	0.370
CIE Y	0.381	0.374	0.360	0.366
	0.366	0.360	0.347	0.352
	0.373	0.366	0.352	0.358
	0.387	0.381	0.366	0.373

White Color Bin Structure



Chromaticity specification defined by ANSI

# TECHNICAL DATA

HIGH POWER LED ( SHUEN 炫, SHWO 燦, SHWO (D) 燦 (D), SHWO (N) 燦 (N), HV, JU 炬, XUAN 煊, A22, B05)

## BRIGHTNESS BINNING RANKS

Shuen, Shwo, Shwo (D), HV Shuen, Shwo

Ju, XUAN

Brightness (lm)

Wavelength (nm)

Brightness (lm)

Luminous Flux Bins

Luminous Flux Bins

Group	Binning	Minimum Photometric Flux (lm)	Maximum Photometric Flux (lm)	Group	Binning	Minimum Dominant	Maximum Dominant	Group	Binning	Minimum Photometric Flux (lm)	Maximum Photometric Flux (lm)	Group	Binning	Minimum Photometric Flux (lm)	Maximum Photometric Flux (lm)
						Wavelength (nm)	Wavelength (nm)								
E	1	4	5	B Blue/Royal-Blue	1	430	435	F	1	27	33	S	1	2200	2400
	2	5	6		2	435	440		2	33	39		2	2400	2600
	3	6	8		3	440	445		3	39	45		3	2600	2800
	4	8	10		4	445	450		4	45	52		4	2800	3000
	5	10	13		5	450	455		5	52	60		5	3000	3200
	6	13	17		6	455	460		6	60	70		6	3200	3400
	7	17	20		7	460	465		7	70	80		7	3400	3600
	8	20	23		8	465	470		8	80	90		8	3600	3800
	9	23	27		9	520	525		9	90	100		9	3800	4000
F	1	27	33	G Green	2	525	530	J	1	100	110	M	1	4000	4200
	2	33	39		3	530	535		2	110	120		2	4200	4400
	3	39	45		4	535	540		3	120	130		3	4400	4600
	4	45	52		5	540	545		4	130	140		4	4600	4800
	5	52	60		6	545	550		5	140	150		5	4800	5000
	6	60	70		1	580	582.5		6	150	160		6	5000	5200
	7	70	80	A Amber	2	582.5	585		7	160	180		7	5200	5400
	8	80	90		3	585	587.5		8	180	200		8	5400	5600
	9	90	100		4	587.5	590		9	200	225		9	5600	5800
J	1	100	110	R Red	5	590	592.5	K	1	225	250	Q	1	5800	6000
	2	110	120		6	592.5	595		2	250	275		2	6000	6200
	3	120	130		3	610	615		3	275	300		3	6200	6400
	4	130	140		4	615	620		4	300	325		4	6400	6600
	5	140	150		5	620	625		5	325	350		5	6600	6800
	6	150	160		6	625	630		6	350	375		6	6800	7000
	7	160	180	7	630	635	7		375	400	7		7000	7200	
	8	180	200	D Deep-Red	1	635	640		8	400	425		8	7200	7400
	9	200	225		2	640	645		9	425	450		9	7400	7600
K	1	225	250		3	645	650	N	1	450	475	P	1	900	1000
	2	250	275	4	650	655	2		475	500	2		1000	1100	
	3	275	300	5	655	660	3		500	550	3		1100	1200	
	4	300	325	6	660	665	4		550	600	4		1200	1350	
	5	325	350	7	665	670	5		600	650	5		1350	1500	
	6	350	375	8	670	675	6		650	700	6		1500	1650	
	7	375	400	1	700	710	7		700	750	7		1650	1800	
	8	400	425	F Far-Red	2	710	715		8	750	800		8	1800	2000
	9	425	450		3	715	720		9	800	900		9	2000	2200
N	1	450	475		4	720	725	1	900	1000	1	900	1000		
	2	475	500	5	725	730	2	1000	1100	2	1000	1100			
	3	500	525	6	730	735	3	1100	1200	3	1100	1200			
	4	525	550	7	735	740	4	1200	1350	4	1200	1350			
				8	740	745	5	1350	1500	5	1350	1500			
							6	1500	1650	6	1500	1650			
							7	1650	1800	7	1650	1800			
							8	1800	2000	8	1800	2000			
							9	2000	2200	9	2000	2200			

HIGH POWER LED ( SHUEN 炫, SHWO 樂, SHWO(D) 樂(D), SHWO(N) 樂(N), A22, B05 )

FORWARD VOLTAGE BINNING RANKS

A22, B05

Brightness (lm)

Luminous Flux Bins

Group	Binning	Minimum Photometric Flux (lm)	Maximum Photometric Flux (lm)
E	1	1.5	3
	2	3	4
	3	4	5
	4	5	6
	5	6	8
F	1	8	10
	2	10	13
	3	13	17
	4	17	20
	5	20	23
J	1	23	27
	2	27	33
	3	33	39
	4	39	45
	5	45	52
K	1	52	60
	2	60	70
	31	70	75
	32	75	80
	33	80	85
	41	85	90
	42	90	95
	43	95	100
	51	100	110
	52	110	120
	53	120	130
N	11	130	140
	12	140	150
	13	150	160
	21	160	180
	22	180	200
	31	200	225
	32	225	250
	41	250	275
	42	275	300
	51	300	350
	52	350	400
R	11	400	450
	12	450	500
	21	500	550
	22	550	600
	31	600	650
	32	650	700
	33	700	750
	4	750	1000
	5	1000	1300

Shuen & Shwo

Forward Voltage Bins

Group Name	Bins	
A	U1+U2+U3	
B	U2+U3+U4	
C	V1+V2+V3	
D	V2+V3+V4	
E	V3+V4+V5	
F	V1+V2	
G	V1	
Bin	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
U1	1.75	2.05
U2	2.05	2.35
U3	2.35	2.65
U4	2.65	2.95
V1	2.95	3.25
V2	3.25	3.55
V3	3.55	3.85
V4	3.85	4.15
V5	4.15	4.45

Shwo (D)

Forward Voltage Bins

Group Name	Bins	
A	U1+U2+U3+U4	
B	U2+U3+U4+V1	
C	V1+V2+V3	
D	V1+V2+V3+V4	
Bin	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
U1	1.75	2.05
U2	2.05	2.35
U3	2.35	2.65
U4	2.65	2.95
V1	2.95	3.25
V2	3.25	3.55
V3	3.55	3.85
V4	3.85	4.15

A22 ( 0.5W )

Forward Voltage Bins

Bin	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
V1	2.95	3.25
V2	3.25	3.55
V3	3.55	3.85
V4	3.85	4.15

A22 ( 1W )

Forward Voltage Bins

Bin	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)	
VD	13.5	14.7	
VE	14.7	15.9	
VF	VF-1	15.9	16.2
	VF-2	16.2	16.5
	VF-3	16.5	16.8
	VF-4	16.8	17.1
VG	VG-1	17.1	17.4
	VG-2	17.4	17.7
	VG-3	17.7	18.0
	VG-4	18.0	18.3

B05

Forward Voltage Bins

Bin	Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
O1	4.5	5.0
O2	5.0	5.5
O3	5.5	6.0
O4	6.0	6.5
O5	6.5	7.0
O6	7.0	7.5
O7	7.5	8.0
R1	8.0	9.0
R2	9.0	10.0
R3	10.0	11.0
R4	11.0	12.0

# TECHNICAL DATA

## HIGH POWER LED ( HV, JU SERIES ) FORWARD VOLTAGE BINNING RANKS

### HV ( 1W )

Forward Voltage Bins For 110V

Group Name	Bins
A	A3+A4
B	A4+A5
C	A5+A6
D	A3+A4+A5
E	A4+A5+A6
F	A3+A4+A5+A6

Bin	Production Line	
	Minimum Voltage (V)	Maximum Voltage (V)
A1	43	45
A2	45	47
A3	47	49
A4	49	51
A5	51	53
A6	53	55
A7	55	57
A8	57	59
A9	59	61

### HV ( 2W )

Forward Voltage Bins For 110V

Group Name	Bins
A	B3+B4
B	B4+B5
C	B5+B6
D	B3+B4+B5
E	B4+B5+B6
F	B3+B4+B5+B6

Bin	Production Line	
	Minimum Voltage (V)	Maximum Voltage (V)
B1	87	91
B2	91	95
B3	95	99
B4	99	103
B5	103	107
B6	107	111
B7	111	115
B8	115	119
B9	119	123

### Ju ( 1215, 2024 )

Forward Voltage Bins

Group	Binning	Minimum Forward Voltage(V)	Maximum Forward Voltage(V)
R	R1	9	10
	R2	10	11
	R3	11	12
	R4	12	13
	R5	13	14
	R6	14	15
	R7	15	16
	R8	16	17
	R9	17	18
T	T1	18	19
	T2	19	20
	T3	20	21
	T4	21	22
	T5	22	23
	T6	23	24
	T7	24	25
	T8	25	26
	T9	26	27
W	W1	27	29
	W2	29	31
	W3	31	33
	W4	33	35
	W5	35	37
	W6	37	39
	W7	39	41
	W8	41	43
	W9	43	45
X	X1	45	47
	X2	47	50
	X3	50	53
	X4	53	56
	X5	56	59
	X6	59	63
	X7	63	67
	X8	67	71
	X9	71	75
Y	Y1	75	79
	Y2	79	83
	Y3	83	88
	Y4	88	93
	Y5	93	98
	Y6	98	103
	Y7	103	108
	Y8	108	113

For Lighting Application Only

LOW MIDDLE POWER LED - SMD TYPE  
CIE BINNING RANKS

Cool-White Bin Coordinates

5000K						
Bin	A	B	C	D	F	G
CIE X	0.3551	0.3464	0.3371	0.3533	0.3487	0.3482
	0.3464	0.3376	0.3366	0.3482	0.3425	0.3422
	0.3456	0.3371	0.3441	0.3477	0.3422	0.3418
	0.3487	0.3422	0.3448	0.3448	0.3482	0.3477
	0.3482	0.3425	0.3418	0.3441	--	--
CIE Y	0.3533	0.3456	0.3422	0.3515	--	--
	0.3760	0.3688	0.3493	0.3624	0.3629	0.3583
	0.3688	0.3616	0.3369	0.3583	0.3579	0.3533
	0.3604	0.3493	0.3428	0.3530	0.3533	0.3483
	0.3629	0.3533	0.3507	0.3507	0.3583	0.3530
	0.3583	0.3579	0.3483	0.3428	--	--
	0.3624	0.3604	0.3533	0.3487	--	--

5700K						
Bin	A	B	C	D	F	G
CIE X	0.3376	0.3292	0.3215	0.3371	0.3321	0.3321
	0.3292	0.3207	0.3222	0.3321	0.3261	0.3262
	0.3292	0.3215	0.3294	0.3320	0.3262	0.3263
	0.3321	0.3262	0.3293	0.3293	0.3321	0.3320
	0.3321	0.3261	0.3263	0.3294	--	--
	0.3371	0.3292	0.3262	0.3366	--	--
CIE Y	0.3616	0.3539	0.3353	0.3493	0.3490	0.3447
	0.3539	0.3462	0.3243	0.3447	0.3436	0.3395
	0.3464	0.3353	0.3306	0.3401	0.3395	0.3350
	0.3490	0.3395	0.3377	0.3377	0.3447	0.3401
	0.3447	0.3436	0.3350	0.3306	--	--
	0.3493	0.3464	0.3395	0.3369	--	--

6500K						
Bin	A	B	C	D	F	G
CIE X	0.3205	0.3117	0.3048	0.3213	0.3157	0.3161
	0.3117	0.3028	0.3068	0.3161	0.3093	0.3100
	0.3125	0.3048	0.3145	0.3166	0.3100	0.3106
	0.3157	0.3100	0.3136	0.3136	0.3161	0.3166
	0.3161	0.3093	0.3106	0.3145	--	--
	0.3213	0.3125	0.3100	0.3221	--	--
CIE Y	0.3481	0.3393	0.3209	0.3371	0.3360	0.3320
	0.3393	0.3304	0.3113	0.3320	0.3297	0.3259
	0.3328	0.3209	0.3187	0.3281	0.3259	0.3222
	0.3360	0.3259	0.3251	0.3251	0.3320	0.3281
	0.3320	0.3297	0.3222	0.3187	--	--
	0.3371	0.3328	0.3259	0.3261	--	--

Natural-White Bin Coordinates

4000K						
Bin	A	B	C	D	F	G
CIE X	0.4006	0.3871	0.3703	0.3952	0.3890	0.3873
	0.3871	0.3736	0.3670	0.3873	0.3793	0.3779
	0.3843	0.3703	0.3784	0.3854	0.3779	0.3764
	0.3890	0.3779	0.3810	0.3810	0.3873	0.3854
	0.3873	0.3793	0.3764	0.3784	--	--
	0.3952	0.3843	0.3779	0.3898	--	--
CIE Y	0.4044	0.3959	0.3726	0.3880	0.3887	0.3831
	0.3959	0.3874	0.3578	0.3831	0.3828	0.3773
	0.3858	0.3726	0.3647	0.3768	0.3773	0.3713
	0.3887	0.3773	0.3741	0.3741	0.3831	0.3768
	0.3831	0.3828	0.3713	0.3647	--	--
	0.3880	0.3858	0.3773	0.3716	--	--

4500K						
Bin	A	B	C	D	F	G
CIE X	0.3736	0.3642	0.3530	0.3703	0.3658	0.3648
	0.3642	0.3548	0.3512	0.3648	0.3592	0.3584
	0.3626	0.3530	0.3591	0.3637	0.3584	0.3575
	0.3658	0.3584	0.3607	0.3607	0.3648	0.3637
	0.3648	0.3592	0.3575	0.3591	--	--
	0.3703	0.3626	0.3584	0.3670	--	--
CIE Y	0.3874	0.3805	0.3601	0.3726	0.3738	0.3686
	0.3805	0.3736	0.3465	0.3686	0.3689	0.3640
	0.3714	0.3601	0.3522	0.3630	0.3640	0.3585
	0.3738	0.3640	0.3608	0.3608	0.3686	0.3630
	0.3686	0.3689	0.3585	0.3522	--	--
	0.3726	0.3714	0.3640	0.3578	--	--

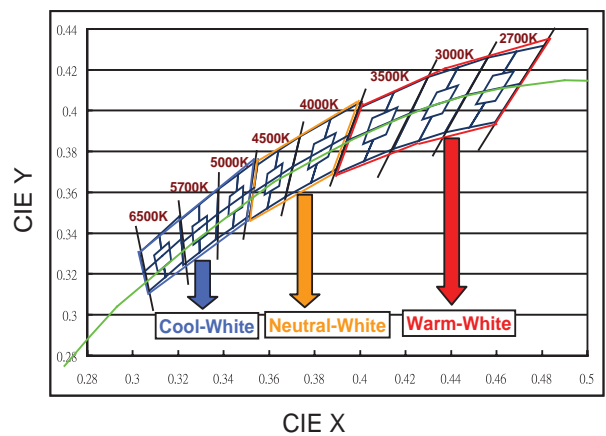
Warm-White Bin Coordinates

2700K						
Bin	A	B	C	D	F	G
CIE X	0.4813	0.4687	0.4465	0.4700	0.4667	0.4627
	0.4687	0.4562	0.4373	0.4627	0.4576	0.4539
	0.4621	0.4465	0.4483	0.4588	0.4539	0.4502
	0.4667	0.4539	0.4544	0.4544	0.4627	0.4588
	0.4627	0.4576	0.4502	0.4483	--	--
	0.4700	0.4621	0.4539	0.4593	--	--
CIE Y	0.4319	0.4289	0.4071	0.4126	0.4180	0.4109
	0.4289	0.4260	0.3893	0.4109	0.4158	0.4088
	0.4169	0.4071	0.3919	0.4041	0.4088	0.4020
	0.4180	0.4088	0.4030	0.4030	0.4109	0.4041
	0.4109	0.4158	0.4020	0.3919	--	--
	0.4126	0.4169	0.4088	0.3944	--	--

3000K						
Bin	A	B	C	D	F	G
CIE X	0.4562	0.4430	0.4221	0.4465	0.4422	0.4388
	0.4430	0.4299	0.4147	0.4388	0.4328	0.4297
	0.4375	0.4221	0.4259	0.4355	0.4297	0.4267
	0.4422	0.4297	0.4311	0.4311	0.4388	0.4355
	0.4388	0.4328	0.4267	0.4259	--	--
	0.4465	0.4375	0.4297	0.4373	--	--
CIE Y	0.4260	0.4212	0.3984	0.4071	0.4113	0.4043
	0.4212	0.4165	0.3814	0.4043	0.4079	0.4011
	0.4096	0.3984	0.3853	0.3977	0.4011	0.3946
	0.4113	0.4011	0.3962	0.3962	0.4043	0.3977
	0.4043	0.4079	0.3946	0.3853	--	--
	0.4071	0.4096	0.4011	0.3893	--	--

3500K						
Bin	A	B	C	D	F	G
CIE X	0.4299	0.4148	0.3943	0.4221	0.4159	0.4134
	0.4148	0.3996	0.3889	0.4134	0.4051	0.4029
	0.4106	0.3943	0.4018	0.4108	0.4029	0.4006
	0.4159	0.4029	0.4057	0.4057	0.4134	0.4108
	0.4134	0.4051	0.4006	0.4018	--	--
	0.4221	0.4106	0.4029	0.4147	--	--
CIE Y	0.4165	0.4090	0.3853	0.3984	0.4007	0.3943
	0.4090	0.4015	0.3690	0.3943	0.3954	0.3893
	0.3981	0.3853	0.3752	0.3878	0.3893	0.3829
	0.4007	0.3893	0.3853	0.3853	0.3943	0.3878
	0.3943	0.3954	0.3829	0.3752	--	--
	0.3984	0.3981	0.3893	0.3814	--	--

White Color Bin Structure



Chromaticity specification defined by ANSI

# TECHNICAL DATA

For Lighting Application Only

## LOW MIDDLE POWER LED - SURFACE MOUNT PLCC TYPE LED BRIGHTNESS BINNING RANKS

### Luminous Flux Bins

Unit : lm

Bin code	Range	
	Min.	Max.
D1	0.5	1.0
D2	1.0	1.5
D3	1.5	2.0
D4	2.0	2.5
D5	2.5	3.0
D6	3.0	3.5
D7	3.5	4.0
D8	4.0	4.5
D9	4.5	5.0
BA	5.0	5.5
B1	5.5	6.0
B2	6.0	6.5
B3	6.5	7.0
B4	7.0	7.5
B5	7.5	8.0
B6	8.0	8.5
B7	8.5	9.0
B8	9.0	9.5
B9	9.5	10.0
L1	10.0	11.0
L2	11.0	12.0
L3	12.0	13.0
L4	13.0	14.0
L5	14.0	15.0
L6	15.0	16.0
L7	16.0	17.0
L8	17.0	18.0
L9	18.0	19.0
M3	19.0	21.0
M4	21.0	24.0
N3	24.0	27.0
N4	27.0	33.0
P3	33.0	39.0
P4	39.0	45.0
Q3	45.0	52.0
NB	32.0	36.0
PA	36.0	40.0
PB	40.0	45.0
QA	45.0	50.0
R1	50.0	55.0
R2	55.0	60.0
R3	60.0	65.0
R4	65.0	70.0
R5	70.0	76.0
R6	76.0	83.0
R7	83.0	90.0
R8	90.0	100.0
S1	100.0	110.0
S2	110.0	120.0
S3	120.0	130.0
S4	130.0	140.0
S5	140.0	150.0
S6	150.0	160.0
S7	160.0	170.0

### VF Group Bin Code

Unit : V

Forward Voltage Group	Bin	Min.	Max.	
B2	B42	35	2.80	2.90
		36	2.90	3.00
		37	3.00	3.10
		38	3.10	3.20
		39	3.20	3.30
		40	3.30	3.40
		41	3.40	3.50
42	3.50	3.60		

Forward Voltage Group	Bin	Min.	Max.
5670	5#6	5.6	5.7
	5#7	5.7	5.8
	5#8	5.8	5.9
	5#9	5.9	6.0
	6#0	6.0	6.1
	6#1	6.1	6.2
	6#2	6.2	6.3
	6#3	6.3	6.4
	6#4	6.4	6.5
	6#5	6.5	6.6
	6#6	6.6	6.7
	6#7	6.7	6.8
	6#8	6.8	6.9
	6#9	6.9	7.0

Forward Voltage Group	Bin	Min.	Max.
8499	84C	8.4	8.7
	87C	8.7	9.0
	90C	9.0	9.3
	93C	9.3	9.6
	96C	9.6	9.9

# SMD LED : SURFACE MOUNT CHIP LED ( PCB TYPE ) BRIGHTNESS BIN SELECTION

## Luminous Intensity Groups

Unit : mcd

	C0: 0.28 ... 0.45	Q ▶	Q1: 72.0 ... 90.0
	D0: 0.45 ... 0.70		Q2: 90.0 ... 112
	E0: 0.70 ... 1.1	R ▶	R1: 112 ... 140
	F0: 1.1 ... 1.8		R2: 140 ... 180
	G0: 1.8 ... 2.8	S ▶	S1: 180 ... 225
	H0: 2.8 ... 4.5		S2: 225 ... 285
	J0: 4.5 ... 7.2	T ▶	T1: 285 ... 360
	K0: 7.2 ... 11.5		T2: 360 ... 450
L ▶	L1: 11.5 ... 14.5	U ▶	U1: 450 ... 565
	L2: 14.5 ... 18.0		U2: 565 ... 715
M ▶	M1: 18.0 ... 22.5		V0: 715 ... 1120
	M2: 22.5 ... 28.5		W0: 1120 ... 1800
N ▶	N1: 28.5 ... 36.0		X0: 1800 ... 2850
	N2: 36.0 ... 45.0		Y0: 2850 ... 4500
P ▶	P1: 45.0 ... 57.0		
	P2: 57.0 ... 72.0		

Note: The luminous intensity data did not include  $\pm 15\%$  testing tolerance.

## V<sub>F</sub> (Forward Voltage Spec. Setup)

Unit : V

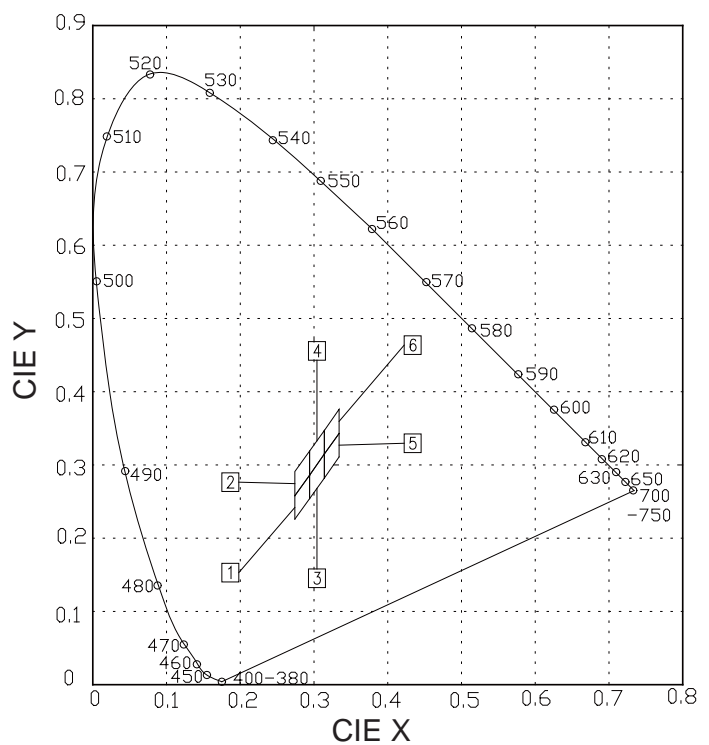
Forward Voltage Groups	Bin	Min.	Max.
	00	1.55	1.75
	0	1.75	1.95
	1	1.95	2.15
	2	2.15	2.35
	3	2.35	2.55
	4	2.55	2.75
	5	2.75	3.05
	6	3.05	3.35
	7	3.35	3.65
	8	3.65	3.95
	10	2.70	2.90
	11	2.90	3.10
	12	3.10	3.30
	13	3.30	3.50
	14	3.50	3.70
	15	2.70	2.85
	16	2.85	3.00
	17	3.00	3.15
	18	3.15	3.30

Note: The forward voltage data did not include  $\pm 0.1V$  testing tolerance.

## Bin Coordinate

Group	Bin Code	CIE_X	CIE_Y
A	1	0.274	0.226
		0.274	0.258
		0.294	0.286
		0.294	0.254
	2	0.274	0.258
		0.274	0.291
		0.294	0.319
		0.294	0.286
	3	0.294	0.254
		0.294	0.286
		0.314	0.315
		0.314	0.282
	4	0.294	0.286
		0.294	0.319
		0.314	0.347
		0.314	0.315
	5	0.314	0.282
		0.314	0.315
		0.334	0.343
		0.334	0.311
	6	0.314	0.315
		0.314	0.347
		0.334	0.376
		0.334	0.343

## Bin Structure ( White Light )





# TECHNICAL DATA

For Lighting Application Only

SMD LED : SURFACE MOUNT PLCC LED ( REFLECTOR ) / LOW POWER LED  
BRIGHTNESS BIN SELECTION

## Luminous Intensity Groups

Unit : mcd

Bin Code	Min.	Max.	Bin Code	Min.	Max.
D1	0.5	1.0	NB	32.0	36.0
D2	1.0	1.5	PA	36.0	40.0
D3	1.5	2.0	PB	40.0	45.0
D4	2.0	2.5	QA	45.0	50.0
D5	2.5	3.0	R1	50.0	55.0
D6	3.0	3.5	R2	55.0	60.0
D7	3.5	4.0	R3	60.0	65.0
D8	4.0	4.5	R4	65.0	70.0
D9	4.5	5.0	R5	70.0	76.0
BA	5.0	5.5	R6	76.0	83.0
B1	5.5	6.0	R7	83.0	90.0
B2	6.0	6.5	R8	90.0	100.0
B3	6.5	7.0	S1	100.0	110.0
B4	7.0	7.5	S2	110.0	120.0
B5	7.5	8.0	S3	120.0	130.0
B6	8.0	8.5	S4	130.0	140.0
B7	8.5	9.0	S5	140.0	150.0
B8	9.0	9.5	S6	150.0	160.0
B9	9.5	10.0	S7	160.0	170.0
L1	10.0	11.0	S8	170.0	180.0
L2	11.0	12.0	T1	180.0	190.0
L3	12.0	13.0	T2	190.0	200.0
L4	13.0	14.0	T3	200.0	220.0
L5	14.0	15.0	T4	220.0	240.0
L6	15.0	16.0	T5	240.0	260.0
L7	16.0	17.0	T6	260.0	280.0
L8	17.0	18.0	T7	280.0	300.0
L9	18.0	19.0	T8	300.0	320.0
M3	19.0	21.0			
M4	21.0	24.0			
N3	24.0	27.0			
N4	27.0	33.0			
P3	33.0	39.0			
P4	39.0	45.0			
Q3	45.0	52.0			

## V<sub>F</sub> (Forward Voltage Spec. Setup)

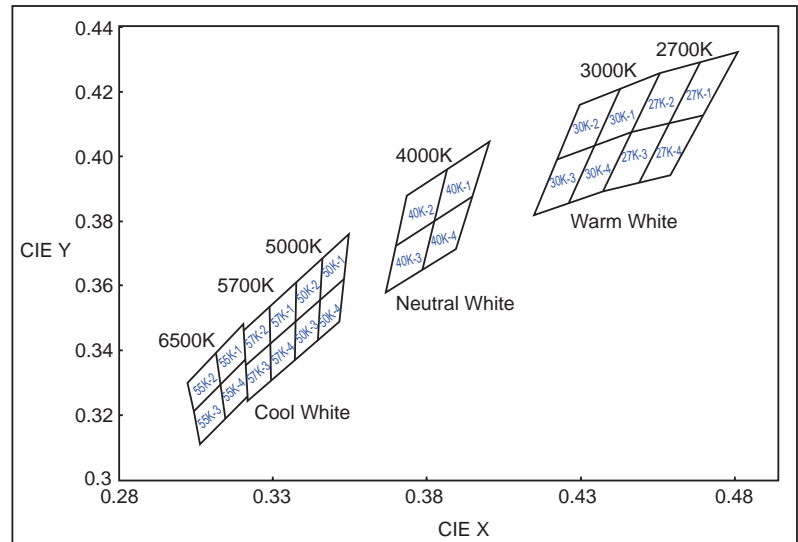
Unit : V ( I<sub>F</sub>=150mA )

Bin Group	Bin Code	Min.	Max.	
B42	B2	35	2.8	2.9
		36	2.9	3.0
		37	3.0	3.1
		38	3.1	3.2
		39	3.2	3.3
		40	3.3	3.4
		41	3.4	3.5
		42	3.5	3.6

## Table of Color Rendering Index

Symbol	Description
M	CRI(Min.) : 60
N	CRI(Min.) : 65
L	CRI(Min.) : 70
Q	CRI(Min.) : 75
K	CRI(Min.) : 80
P	CRI(Min.) : 85
H	CRI(Min.) : 90

## Bin Structure



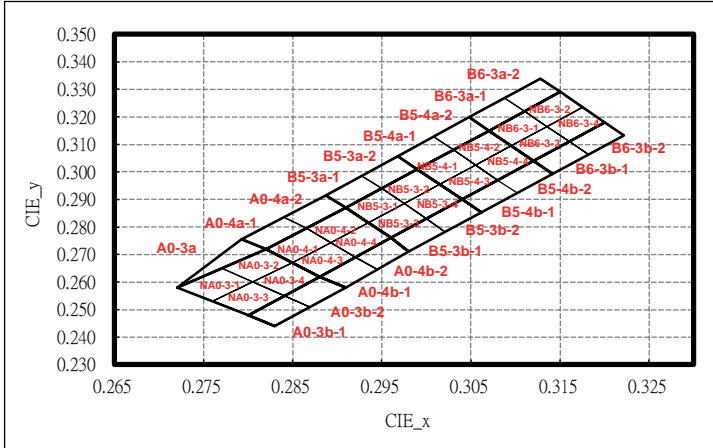
Bin Coordinate

CCT	Bin Code	CIE_x	CIE_y	Bin Code	CIE_x	CIE_y
6500K	65K-1	0.3205	0.3481	65K-3	0.3131	0.3290
		0.3117	0.3393		0.3048	0.3209
		0.3131	0.3290		0.3068	0.3113
		0.3213	0.3371		0.3145	0.3187
	65K-2	0.3117	0.3393	65K-4	0.3213	0.3371
		0.3028	0.3304		0.3131	0.3290
		0.3048	0.3209		0.3145	0.3187
		0.3131	0.3290		0.3221	0.3261
5700K	57K-1	0.3376	0.3616	57K-3	0.3293	0.3423
		0.3292	0.3539		0.3215	0.3353
		0.3293	0.3423		0.3222	0.3243
		0.3371	0.3493		0.3294	0.3306
	57K-2	0.3292	0.3539	57K-4	0.3371	0.3493
		0.3207	0.3462		0.3293	0.3423
		0.3215	0.3353		0.3294	0.3306
		0.3293	0.3423		0.3366	0.3369
5000K	50K-1	0.3551	0.3760	50K-3	0.3452	0.3558
		0.3464	0.3688		0.3371	0.3493
		0.3452	0.3558		0.3366	0.3369
		0.3533	0.3624		0.3441	0.3428
	50K-2	0.3464	0.3688	50K-4	0.3533	0.3624
		0.3376	0.3616		0.3452	0.3558
		0.3371	0.3493		0.3441	0.3428
		0.3452	0.3558		0.3515	0.3487
4000K	40K-1	0.4006	0.4044	40K-3	0.3828	0.3803
		0.3871	0.3959		0.3703	0.3726
		0.3828	0.3803		0.3670	0.3578
		0.3952	0.3880		0.3784	0.3647
	40K-2	0.3871	0.3959	40K-4	0.3952	0.3880
		0.3736	0.3874		0.3828	0.3803
		0.3703	0.3726		0.3784	0.3647
		0.3828	0.3803		0.3898	0.3716
3000K	30K-1	0.4562	0.4260	30K-3	0.4345	0.4033
		0.4431	0.4213		0.4223	0.3990
		0.4345	0.4033		0.4147	0.3814
		0.4468	0.4077		0.4260	0.3854
	30K-2	0.4431	0.4213	30K-4	0.4468	0.4077
		0.4299	0.4165		0.4345	0.4033
		0.4223	0.3990		0.4260	0.3854
		0.4345	0.4033		0.4373	0.3893
2700K	27K-1	0.4813	0.4319	27K-3	0.4585	0.4104
		0.4688	0.4290		0.4468	0.4077
		0.4585	0.4104		0.4373	0.3893
		0.4703	0.4132		0.4483	0.3919
	27K-2	0.4688	0.4290	27K-4	0.4703	0.4132
		0.4562	0.4260		0.4585	0.4104
		0.4468	0.4077		0.4483	0.3919
			0.4104			0.3944

# TECHNICAL DATA

## SMD LED ( 99 SERIES ) BRIGHTNESS BIN SELECTION

### Chromaticity Diagram



### Bin Code of Chromaticity Coordinates

Bin Code	CIE_x	CIE_y	Bin Code	CIE_x	CIE_y	Bin Code	CIE_x	CIE_y	Bin Code	CIE_x	CIE_y		
NA0-3-1	0.2760	0.2530	NA0-3-2	0.2805	0.2600	NA0-4-1	0.2850	0.2670	NA0-4-2	0.2893	0.2743		
	0.2720	0.2580		0.2770	0.2650		0.2820	0.2720		0.2865	0.2795	0.2910	0.2870
	0.2770	0.2650		0.2805	0.2600		0.2850	0.2670		0.2893	0.2743	0.2935	0.2815
NA0-3-3	0.2800	0.2480	NA0-3-4	0.2840	0.2550	NA0-4-3	0.2880	0.2620	NA0-4-4	0.2920	0.2690		
	0.2760	0.2530		0.2805	0.2600		0.2850	0.2670		0.2893	0.2743	0.2935	0.2815
	0.2805	0.2600		0.2850	0.2670		0.2893	0.2743		0.2920	0.2690	0.2960	0.2760
A0-3b-1	0.2830	0.2440	A0-3b-2	0.2870	0.2510	A0-4b-1	0.2910	0.2580	A0-4b-2	0.2945	0.2645		
	0.2800	0.2480		0.2840	0.2550		0.2880	0.2620		0.2920	0.2690	0.2960	0.2760
	0.2840	0.2550		0.2880	0.2620		0.2920	0.2690		0.2945	0.2645	0.2980	0.2710
A0-4a-1	0.2820	0.2720	A0-4a-2	0.2865	0.2795	B5-3a-1	0.2910	0.2870	B5-3a-2	0.2950	0.2940		
	0.2793	0.2755		0.2840	0.2836		0.2887	0.2916		0.2887	0.2916	0.2928	0.2987
	0.2840	0.2836		0.2887	0.2916		0.2928	0.2987		0.2950	0.2940	0.2968	0.3058
A0-3a	0.2720	0.2580	NB5-3-1	0.2910	0.2870	NB5-3-2	0.2935	0.2815	NB5-3-2	0.2975	0.2885		
	0.2793	0.2755		0.2910	0.2870		0.2950	0.2940		0.2950	0.2940	0.2950	0.2940
	0.2820	0.2720		0.2950	0.2940		0.2975	0.2885		0.2990	0.3010	0.2990	0.3010
NB5-3-3	0.2960	0.2760	NB5-3-4	0.3000	0.2830	B5-4b-1	0.3062	0.2853	B5-4b-2	0.3102	0.2923		
	0.2935	0.2815		0.2975	0.2885		0.3040	0.2900		0.3080	0.2970	0.3080	0.2970
	0.2975	0.2885		0.3015	0.2955		0.3080	0.2970		0.3120	0.3040	0.3120	0.3040
B5-3b-1	0.2980	0.2710	B5-3b-2	0.3021	0.2782	B6-3a-1	0.3102	0.2923	B6-3a-2	0.3142	0.2993		
	0.2960	0.2760		0.3000	0.2830		0.3070	0.3150		0.3110	0.3220	0.3110	0.3220
	0.3000	0.2830		0.3040	0.2900		0.3048	0.3198		0.3088	0.3268	0.3088	0.3268
B5-4a-1	0.2990	0.3010	B5-4a-2	0.3030	0.3080	NB6-3-1	0.3110	0.3220	NB6-3-2	0.3150	0.3290		
	0.2968	0.3058		0.3008	0.3128		0.3070	0.3150		0.3110	0.3220	0.3110	0.3220
	0.3008	0.3128		0.3048	0.3198		0.3135	0.3165		0.3175	0.3235	0.3175	0.3235
NB5-4-1	0.3015	0.2955	NB5-4-2	0.3055	0.3025	NB6-3-3	0.3120	0.3040	NB6-3-4	0.3160	0.3110		
	0.2990	0.3010		0.3030	0.3080		0.3095	0.3095		0.3135	0.3165	0.3135	0.3165
	0.3030	0.3080		0.3070	0.3150		0.3160	0.3110		0.3200	0.3180	0.3175	0.3235
NB5-4-3	0.3040	0.2900	NB5-4-4	0.3080	0.2970	B6-3b-1	0.3142	0.2993	B6-3b-2	0.3182	0.3063		
	0.3015	0.2955		0.3055	0.3025		0.3120	0.3040		0.3160	0.3110	0.3160	0.3110
	0.3055	0.3025		0.3095	0.3095		0.3160	0.3110		0.3200	0.3180	0.3200	0.3180
NB5-4-3	0.3040	0.2900	NB5-4-4	0.3080	0.2970	B6-3b-1	0.3142	0.2993	B6-3b-2	0.3182	0.3063		
	0.3015	0.2955		0.3055	0.3025		0.3120	0.3040		0.3160	0.3110	0.3160	0.3110
	0.3055	0.3025		0.3095	0.3095		0.3160	0.3110		0.3200	0.3180	0.3200	0.3180
NB5-4-3	0.3040	0.2900	NB5-4-4	0.3080	0.2970	B6-3b-1	0.3142	0.2993	B6-3b-2	0.3182	0.3063		
	0.3015	0.2955		0.3055	0.3025		0.3120	0.3040		0.3160	0.3110	0.3160	0.3110
	0.3055	0.3025		0.3095	0.3095		0.3160	0.3110		0.3200	0.3180	0.3200	0.3180
NB5-4-3	0.3040	0.2900	NB5-4-4	0.3080	0.2970	B6-3b-1	0.3142	0.2993	B6-3b-2	0.3182	0.3063		
	0.3015	0.2955		0.3055	0.3025		0.3120	0.3040		0.3160	0.3110	0.3160	0.3110
	0.3055	0.3025		0.3095	0.3095		0.3160	0.3110		0.3200	0.3180	0.3200	0.3180

### V<sub>F</sub> (Forward Voltage Spec. Setup)

Unit : V

Groups										Bin	Min.	Max.	Groups	Bin	Min.	Max.		
I	X	R	N	K	E	S	W	J	Y	U	4-2-3	2.70	2.80	Z	T	5-1	2.75	2.85
											5-1-3	2.80	2.90			5-2	2.85	2.95
											5-2-3	2.90	3.00			6-1	2.95	3.05
											6-1-3	3.00	3.10			6-2	3.05	3.15
											6-2-3	3.10	3.20			7-1	3.15	3.25
											7-1-3	3.20	3.30			7-2	3.25	3.35
											7-2-3	3.30	3.40			8-1	3.35	3.45

Note: Tolerance of Forward Voltage: ±0.05V

### Luminous Flux

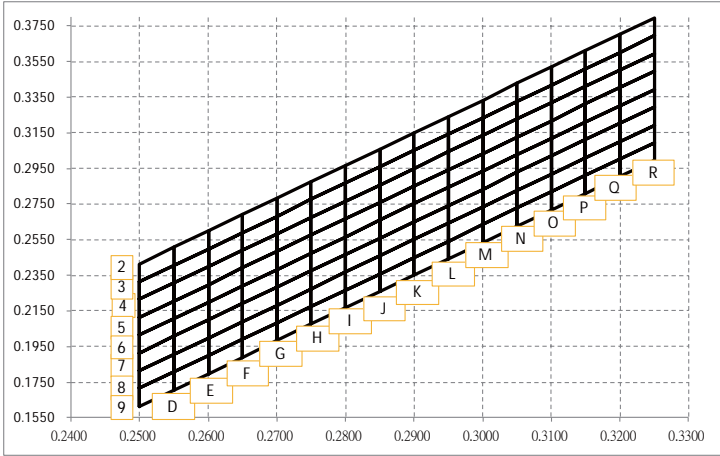
Bin	Unit: lm		Unit: mcd.	
	Min	Max	Min	Max
L45	4.50	4.75	1605	1695
L47	4.75	5.00	1695	1785
L50	5.00	5.25	1785	1875
L52	5.25	5.50	1875	1965
L55	5.50	5.75	1965	2055
L57	5.75	6.00	2055	2145
L60	6.00	6.25	2145	2235
L62	6.25	6.50	2235	2325
L65	6.50	6.75	2325	2415
L67	6.75	7.00	2415	2505
L70	7.00	7.25	2505	2595
L72	7.25	7.50	2595	2685
L75	7.50	7.75	2685	2775
L77	7.75	8.00	2775	2865
L80	8.00	8.25	2865	2955
L82	8.25	8.50	2955	3045
L85	8.50	8.75	3045	3135
L87	8.75	9.00	3135	3225
L90	9.00	9.25	3225	3315
L92	9.25	9.50	3315	3405
L95	9.50	9.75	3405	3495
L97	9.75	10.00	3495	3585

Note: Tolerance of Luminous Flux: ±7%.

# TECHNICAL DATA

## SMD LED (3003,3006 SERIES) BRIGHTNESS BIN SELECTION

Chromaticity Diagram



Bin code of Chromaticity Coordinates

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y
A1	0.2731	0.2569	B1	0.2770	0.2644	C1	0.2809	0.2719
	0.2702	0.2603		0.2741	0.2678		0.2780	0.2753
	0.2741	0.2678		0.2780	0.2753		0.2819	0.2828
	0.2770	0.2644		0.2809	0.2719		0.2848	0.2794
A2	0.2760	0.2535	B2	0.2799	0.2610	C2	0.2838	0.2685
	0.2731	0.2569		0.2770	0.2644		0.2809	0.2719
	0.2770	0.2644		0.2809	0.2719		0.2848	0.2794
	0.2799	0.2610		0.2838	0.2685		0.2877	0.2760
A3	0.2789	0.2501	B3	0.2828	0.2576	C3	0.2867	0.2651
	0.2760	0.2535		0.2799	0.2610		0.2838	0.2685
	0.2799	0.2610		0.2838	0.2685		0.2877	0.2760
	0.2828	0.2576		0.2867	0.2651		0.2906	0.2726
A4	0.2818	0.2467	B4	0.2856	0.2539	C4	0.2895	0.2614
	0.2789	0.2501		0.2828	0.2576		0.2867	0.2651
	0.2828	0.2576		0.2867	0.2651		0.2906	0.2726
	0.2856	0.2539		0.2895	0.2614		0.2934	0.2689
A5	0.2847	0.2433	B5	0.2885	0.2505	C5	0.2924	0.2580
	0.2818	0.2467		0.2856	0.2539		0.2895	0.2614
	0.2856	0.2539		0.2895	0.2614		0.2934	0.2689
	0.2885	0.2505		0.2924	0.2580		0.2963	0.2655
A6	0.2876	0.2399	B6	0.2915	0.2474	C6	0.2954	0.2549
	0.2847	0.2433		0.2885	0.2505		0.2924	0.2580
	0.2885	0.2505		0.2924	0.2580		0.2963	0.2655
	0.2915	0.2474		0.2954	0.2549		0.2992	0.2621
A7	0.2905	0.2365	B7	0.2944	0.2440	C7	0.2983	0.2515
	0.2876	0.2399		0.2915	0.2474		0.2954	0.2549
	0.2915	0.2474		0.2954	0.2549		0.2992	0.2621
	0.2944	0.2440		0.2983	0.2515		0.3021	0.2587
A8	0.2934	0.2331	B8	0.2973	0.2406	C8	0.3012	0.2481
	0.2905	0.2365		0.2944	0.2440		0.2983	0.2515
	0.2944	0.2440		0.2983	0.2515		0.3021	0.2587
	0.2973	0.2406		0.3012	0.2481		0.3051	0.2556

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y					
D1	0.2848	0.2794	E1	0.2887	0.2869	F1	0.2926	0.2944	G1	0.2965	0.3019	H1	0.3004	0.3094	J1	0.3043	0.3169	K1	0.3082	0.3244		
	0.2819	0.2828		0.2858	0.2903		0.2897	0.2978		0.2936	0.3053		0.2975	0.3128		0.3014	0.3203		0.3053	0.3278	0.3092	0.3353
	0.2858	0.2903		0.2897	0.2978		0.2936	0.3053		0.2975	0.3128		0.3014	0.3203		0.3053	0.3278		0.3092	0.3353	0.3121	0.3319
	0.2887	0.2869		0.2926	0.2944		0.2965	0.3019		0.3004	0.3094		0.3043	0.3169		0.3082	0.3244		0.3121	0.3319	0.3111	0.3210
D2	0.2877	0.2760	E2	0.2916	0.2835	F2	0.2955	0.2910	G2	0.2994	0.2985	H2	0.3033	0.3060	J2	0.3072	0.3135	K2	0.3111	0.3210		
	0.2848	0.2794		0.2887	0.2869		0.2926	0.2944		0.2965	0.3019		0.3004	0.3094		0.3043	0.3169		0.3082	0.3244	0.3121	0.3319
	0.2887	0.2869		0.2926	0.2944		0.2965	0.3019		0.3004	0.3094		0.3043	0.3169		0.3082	0.3244		0.3121	0.3319	0.3150	0.3285
	0.2916	0.2835		0.2955	0.2910		0.2994	0.2985		0.3033	0.3060		0.3072	0.3135		0.3111	0.3210		0.3150	0.3285	0.3179	0.3251
D3	0.2906	0.2726	E3	0.2945	0.2801	F3	0.2984	0.2876	G3	0.3023	0.2951	H3	0.3062	0.3026	J3	0.3101	0.3101	K3	0.3140	0.3176		
	0.2877	0.2760		0.2916	0.2835		0.2955	0.2910		0.2994	0.2985		0.3033	0.3060		0.3072	0.3135		0.3111	0.3210	0.3150	0.3285
	0.2916	0.2835		0.2955	0.2910		0.2994	0.2985		0.3033	0.3060		0.3072	0.3135		0.3111	0.3210		0.3150	0.3285	0.3179	0.3251
	0.2945	0.2801		0.2984	0.2876		0.3023	0.2951		0.3062	0.3026		0.3101	0.3101		0.3140	0.3176		0.3179	0.3251	0.3226	0.3071
D4	0.2934	0.2689	E4	0.2973	0.2764	F4	0.3012	0.2839	G4	0.3051	0.2914	H4	0.3090	0.2989	J4	0.3129	0.3064	K4	0.3168	0.3139		
	0.2906	0.2726		0.2945	0.2801		0.2984	0.2876		0.3023	0.2951		0.3062	0.3026		0.3101	0.3101		0.3140	0.3176	0.3179	0.3251
	0.2945	0.2801		0.2984	0.2876		0.3012	0.2839		0.3051	0.2914		0.3090	0.2989		0.3129	0.3064		0.3168	0.3139	0.3207	0.3214
	0.2973	0.2764		0.3012	0.2839		0.3051	0.2914		0.3090	0.2989		0.3129	0.3064		0.3168	0.3139		0.3207	0.3214	0.3197	0.3105
D5	0.2963	0.2655	E5	0.3002	0.2730	F5	0.3041	0.2805	G5	0.3080	0.2880	H5	0.3119	0.2955	J5	0.3158	0.3030	K5	0.3197	0.3105		
	0.2934	0.2689		0.2973	0.2764		0.3012	0.2839		0.3051	0.2914		0.3090	0.2989		0.3129	0.3064		0.3168	0.3139	0.3207	0.3214
	0.2973	0.2764		0.3012	0.2839		0.3051	0.2914		0.3090	0.2989		0.3129	0.3064		0.3168	0.3139		0.3207	0.3214	0.3236	0.3180
	0.3002	0.2730		0.3041	0.2805		0.3080	0.2880		0.3119	0.2955		0.3158	0.3030		0.3197	0.3105		0.3236	0.3180	0.3226	0.3071
D6	0.2992	0.2621	E6	0.3031	0.2696	F6	0.3070	0.2771	G6	0.3109	0.2846	H6	0.3148	0.2921	J6	0.3187	0.2996	K6	0.3226	0.3071		
	0.2963	0.2655		0.3002	0.2730		0.3041	0.2805		0.3080	0.2880		0.3119	0.2955		0.3158	0.3030		0.3197	0.3105	0.3236	0.3180
	0.3002	0.2730		0.3041	0.2805		0.3080	0.2880		0.3119	0.2955		0.3158	0.3030		0.3197	0.3105		0.3236	0.3180	0.3265	0.3146
	0.3031	0.2696		0.3070	0.2771		0.3109	0.2846		0.3148	0.2921		0.3187	0.2996		0.3226	0.3071		0.3265	0.3146	0.3255	0.3037
D7	0.3021	0.2587	E7	0.3060	0.2662	F7	0.3099	0.2737	G7	0.3138	0.2812	H7	0.3177	0.2887	J7	0.3216	0.2962	K7	0.3255	0.3037		
	0.2992	0.2621		0.3031	0.2696		0.3070	0.2771		0.3109	0.2846		0.3148	0.2921		0.3187	0.2996		0.3226	0.3071	0.3265	0.3146
	0.3031	0.2696		0.3070	0.2771		0.3109	0.2846		0.3148	0.2921		0.3187	0.2996		0.3226	0.3071		0.3265	0.3146	0.3294	0.3112
	0.3060	0.2662		0.3099	0.2737		0.3138	0.2812		0.3177	0.2887		0.3216	0.2962		0.3255	0.3037		0.3294	0.3112	0.3285	0.3006
D8	0.3051	0.2556	E8	0.3090	0.2631	F8	0.3129	0.2706	G8	0.3168	0.2781	H8	0.3207	0.2856	J8	0.3246	0.2931	K8	0.3285	0.3006		
	0.3021	0.2587		0.3060	0.2662		0.3099	0.2737		0.3138	0.2812		0.3177	0.2887		0.3216	0.2962		0.3255	0.3037	0.3285	0.3006
	0.3060	0.2662		0.3099	0.2737		0.3138	0.2812		0.3177	0.2887		0.3216	0.2962		0.3255	0.3037		0.3294	0.3112	0.3285	0.3006
	0.3090	0.2631		0.3129	0.2706		0.3168	0.2781		0.3207	0.2856		0.3246	0.2931		0.3285	0.3006		0.3285	0.3006	0.3285	0.3006

### Bin Code of Chromaticity Coordinates

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y
N2	0.3000	0.3234	O2	0.3050	0.3326	P2	0.3100	0.3418	Q2	0.3150	0.3510	R2	0.3200	0.3602
	0.3000	0.3334		0.3050	0.3426		0.3100	0.3518		0.3150	0.3610		0.3200	0.3702
	0.3050	0.3426		0.3100	0.3518		0.3150	0.3610		0.3200	0.3702		0.3250	0.3794
	0.3050	0.3326		0.3100	0.3418		0.3150	0.3510		0.3200	0.3602		0.3250	0.3694
N3	0.3000	0.3134	O3	0.3050	0.3226	P3	0.3100	0.3318	Q3	0.3150	0.3410	R3	0.3200	0.3502
	0.3000	0.3234		0.3050	0.3326		0.3100	0.3418		0.3150	0.3510		0.3200	0.3602
	0.3050	0.3326		0.3100	0.3418		0.3150	0.3510		0.3200	0.3602		0.3250	0.3694
	0.3050	0.3226		0.3100	0.3318		0.3150	0.3410		0.3200	0.3502		0.3250	0.3594
N4	0.3000	0.3034	O4	0.3050	0.3126	P4	0.3100	0.3218	Q4	0.3150	0.3310	R4	0.3200	0.3402
	0.3000	0.3134		0.3050	0.3226		0.3100	0.3318		0.3150	0.3410		0.3200	0.3502
	0.3050	0.3226		0.3100	0.3318		0.3150	0.3410		0.3200	0.3502		0.3250	0.3594
	0.3050	0.3126		0.3100	0.3218		0.3150	0.3310		0.3200	0.3402		0.3250	0.3494
N5	0.3000	0.2934	O5	0.3050	0.3026	P5	0.3100	0.3118	Q5	0.3150	0.3210	R5	0.3200	0.3302
	0.3000	0.3034		0.3050	0.3126		0.3100	0.3218		0.3150	0.3310		0.3200	0.3402
	0.3050	0.3126		0.3100	0.3218		0.3150	0.3310		0.3200	0.3402		0.3250	0.3494
	0.3050	0.3026		0.3100	0.3118		0.3150	0.3210		0.3200	0.3302		0.3250	0.3394
N6	0.3000	0.2834	O6	0.3050	0.2926	P6	0.3100	0.3018	Q6	0.3150	0.3110	R6	0.3200	0.3202
	0.3000	0.2934		0.3050	0.3026		0.3100	0.3118		0.3150	0.3210		0.3200	0.3302
	0.3050	0.3026		0.3100	0.3118		0.3150	0.3210		0.3200	0.3302		0.3250	0.3394
	0.3050	0.2926		0.3100	0.3018		0.3150	0.3110		0.3200	0.3202		0.3250	0.3294
N7	0.3000	0.2734	O7	0.3050	0.2826	P7	0.3100	0.2918	Q7	0.3150	0.3010	R7	0.3200	0.3102
	0.3000	0.2834		0.3050	0.2926		0.3100	0.3018		0.3150	0.3110		0.3200	0.3202
	0.3050	0.2926		0.3100	0.3018		0.3150	0.3110		0.3200	0.3202		0.3250	0.3294
	0.3050	0.2826		0.3100	0.2918		0.3150	0.3010		0.3200	0.3102		0.3250	0.3194
N8	0.3000	0.2634	O8	0.3050	0.2726	P8	0.3100	0.2818	Q8	0.3150	0.2910	R8	0.3200	0.3002
	0.3000	0.2734		0.3050	0.2826		0.3100	0.2918		0.3150	0.3010		0.3200	0.3102
	0.3050	0.2826		0.3100	0.2918		0.3150	0.3010		0.3200	0.3102		0.3250	0.3194
	0.3050	0.2726		0.3100	0.2818		0.3150	0.2910		0.3200	0.3002		0.3250	0.3094
N9	0.3000	0.2534	O9	0.3050	0.2626	P9	0.3100	0.2718	Q9	0.3150	0.2810	R9	0.3200	0.2902
	0.3000	0.2634		0.3050	0.2726		0.3100	0.2818		0.3150	0.2910		0.3200	0.3002
	0.3050	0.2726		0.3100	0.2818		0.3150	0.2910		0.3200	0.3002		0.3250	0.3094
	0.3050	0.2626		0.3100	0.2718		0.3150	0.2810		0.3200	0.2902		0.3250	0.2994

### Luminous Flux

Bin	Unit: lm		Unit: mcd	
	Min.	Max.	Min.	Max.
L45	4.50	4.75	1605	1695
L47	4.75	5.00	1695	1785
L50	5.00	5.25	1785	1875
L52	5.25	5.50	1875	1965
L55	5.50	5.75	1965	2055
L57	5.75	6.00	2055	2145
L60	6.00	6.25	2145	2235
L62	6.25	6.50	2235	2325
L65	6.50	6.75	2325	2415
L67	6.75	7.00	2415	2505
L70	7.00	7.25	2505	2595
L72	7.25	7.50	2595	2685
L75	7.50	7.75	2685	2775
L77	7.75	8.00	2775	2865
L80	8.00	8.25	2865	2955
L82	8.25	8.50	2955	3045
L85	8.50	8.75	3045	3135
L87	8.75	9.00	3135	3225
L90	9.00	9.25	3225	3315
L92	9.25	9.50	3315	3405
L95	9.50	9.75	3405	3495
L97	9.75	10.00	3495	3585

Note: Tolerance of Luminous Flux: ±7%

### V<sub>F</sub> (Forward Voltage Spec. Setup)

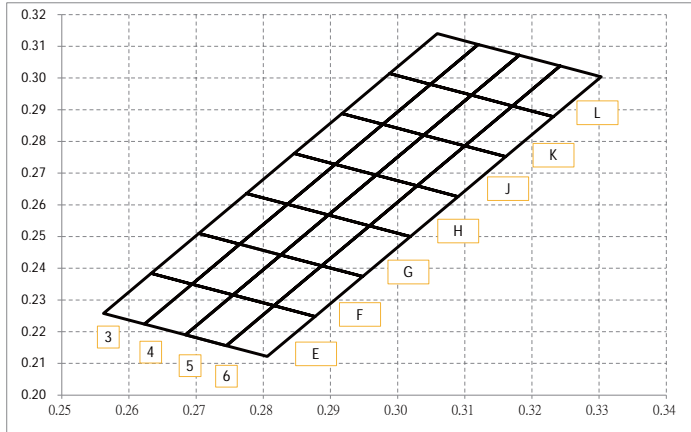
Bin	Unit: V	
	Min.	Max.
U1	2.60	2.70
U2	2.70	2.80
U3	2.80	2.90
U4	2.90	3.00
U5	3.00	3.10
U6	3.10	3.20
U7	3.20	3.30
U8	3.30	3.40
U9	3.40	3.50
V1	2.65	2.75
V2	2.75	2.85
V3	2.85	2.95
V4	2.95	3.05
V5	3.05	3.15
V6	3.15	3.25
V7	3.25	3.35
V8	3.35	3.45
V9	3.45	3.55

Note: Tolerance of Forward Voltage: ±0.05V.

# TECHNICAL DATA

## SMD LED (3004 SERIES) BRIGHTNESS BIN SELECTION

### Chromaticity Diagram



### Bin code of Chromaticity Coordinates

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y
E5	0.2755	0.2316	E4	0.2755	0.2316	E3	0.2694	0.2350	E6	0.2816	0.2282
	0.2684	0.2190		0.2684	0.2190		0.2623	0.2224		0.2745	0.2156
	0.2745	0.2156		0.2623	0.2224		0.2562	0.2258		0.2806	0.2122
	0.2816	0.2282		0.2694	0.2350		0.2633	0.2384		0.2877	0.2248
	0.2755	0.2316		0.2755	0.2316		0.2694	0.2350		0.2816	0.2282
F5	0.2826	0.2442	F4	0.2826	0.2442	F3	0.2765	0.2476	F6	0.2887	0.2408
	0.2755	0.2316		0.2755	0.2316		0.2694	0.2350		0.2816	0.2282
	0.2816	0.2282		0.2694	0.2350		0.2633	0.2384		0.2877	0.2248
	0.2887	0.2408		0.2765	0.2476		0.2704	0.2510		0.2948	0.2374
	0.2826	0.2442		0.2826	0.2442		0.2765	0.2476		0.2887	0.2408
G5	0.2897	0.2568	G4	0.2897	0.2568	G3	0.2836	0.2602	G6	0.2958	0.2534
	0.2826	0.2442		0.2826	0.2442		0.2765	0.2476		0.2887	0.2408
	0.2887	0.2408		0.2765	0.2476		0.2704	0.2510		0.2948	0.2374
	0.2958	0.2534		0.2836	0.2602		0.2775	0.2636		0.3019	0.2500
	0.2897	0.2568		0.2897	0.2568		0.2836	0.2602		0.2958	0.2534
H5	0.2968	0.2694	H4	0.2968	0.2694	H3	0.2907	0.2728	H6	0.3029	0.2660
	0.2897	0.2568		0.2897	0.2568		0.2836	0.2602		0.2958	0.2534
	0.2958	0.2534		0.2836	0.2602		0.2775	0.2636		0.3019	0.2500
	0.3029	0.2660		0.2907	0.2728		0.2846	0.2762		0.3090	0.2626
	0.2968	0.2694		0.2968	0.2694		0.2907	0.2728		0.3029	0.2660
J5	0.3039	0.2820	J4	0.3039	0.2820	J3	0.2978	0.2854	J6	0.3100	0.2786
	0.2968	0.2694		0.2968	0.2694		0.2907	0.2728		0.3029	0.2660
	0.3029	0.2660		0.2907	0.2728		0.2846	0.2762		0.3090	0.2626
	0.3100	0.2786		0.2978	0.2854		0.2917	0.2888		0.3161	0.2752
	0.3039	0.2820		0.3039	0.2820		0.2978	0.2854		0.3100	0.2786
K5	0.3110	0.2946	K4	0.3110	0.2946	K3	0.3049	0.2980	K6	0.3171	0.2912
	0.3039	0.2820		0.3039	0.2820		0.2978	0.2854		0.3100	0.2786
	0.3100	0.2786		0.2978	0.2854		0.2917	0.2888		0.3161	0.2752
	0.3171	0.2912		0.3049	0.2980		0.2988	0.3014		0.3232	0.2878
	0.3110	0.2946		0.3110	0.2946		0.3049	0.2980		0.3171	0.2912
L5	0.3181	0.3072	L4	0.3181	0.3072	L3	0.3120	0.3106	L6	0.3242	0.3038
	0.3110	0.2946		0.3110	0.2946		0.3049	0.2980		0.3171	0.2912
	0.3171	0.2912		0.3049	0.2980		0.2988	0.3014		0.3232	0.2878
	0.3242	0.3038		0.3120	0.3106		0.3059	0.3140		0.3303	0.3004
	0.3181	0.3072		0.3181	0.3072		0.3120	0.3106		0.3242	0.3038

### Luminous Flux

Bin	Unit: lm		Unit: mcd	
	Min.	Max.	Min.	Max.
L45	4.50	4.75	1605	1695
L47	4.75	5.00	1695	1785
L50	5.00	5.25	1785	1875
L52	5.25	5.50	1875	1965
L55	5.50	5.75	1965	2055
L57	5.75	6.00	2055	2145
L60	6.00	6.25	2145	2235
L62	6.25	6.50	2235	2325
L65	6.50	6.75	2325	2415
L67	6.75	7.00	2415	2505
L70	7.00	7.25	2505	2595
L72	7.25	7.50	2595	2685
L75	7.50	7.75	2685	2775
L77	7.75	8.00	2775	2865
L80	8.00	8.25	2865	2955
L82	8.25	8.50	2955	3045
L85	8.50	8.75	3045	3135
L87	8.75	9.00	3135	3225
L90	9.00	9.25	3225	3315
L92	9.25	9.50	3315	3405
L95	9.50	9.75	3405	3495
L97	9.75	10.00	3495	3585

Note: Tolerance of Luminous Flux:  $\pm 7\%$

### V<sub>F</sub> (Forward Voltage Spec. Setup)

Bin	Unit: V	
	Min.	Max.
U1	2.60	2.70
U2	2.70	2.80
U3	2.80	2.90
U4	2.90	3.00
U5	3.00	3.10
U6	3.10	3.20
U7	3.20	3.30
U8	3.30	3.40
U9	3.40	3.50
V1	2.65	2.75
V2	2.75	2.85
V3	2.85	2.95
V4	2.95	3.05
V5	3.05	3.15
V6	3.15	3.25
V7	3.25	3.35
V8	3.35	3.45
V9	3.45	3.55

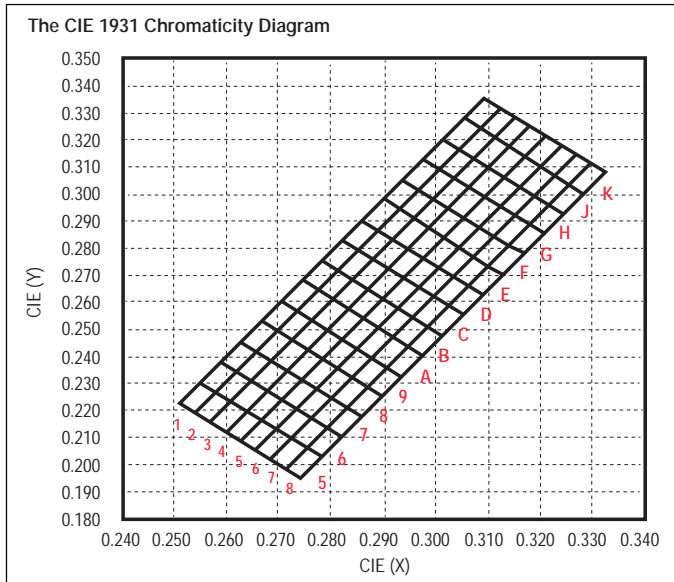
Note: Tolerance of Forward Voltage:  $\pm 0.05V$ .



# TECHNICAL DATA

## SMD LED ( 50 SERIES ) BRIGHTNESS BIN SELECTION

### Chromaticity Diagram



### Bin Code of Chromaticity Coordinates

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y
D2	0.2500	0.2314	E2	0.2550	0.2406	F2	0.2600	0.2498
	0.2500	0.2414		0.2550	0.2506		0.2600	0.2598
	0.2550	0.2506		0.2600	0.2598		0.2650	0.2690
	0.2550	0.2406		0.2600	0.2498		0.2650	0.2590
D3	0.2500	0.2214	E3	0.2550	0.2306	F3	0.2600	0.2398
	0.2500	0.2314		0.2550	0.2406		0.2600	0.2498
	0.2550	0.2406		0.2600	0.2498		0.2650	0.2590
	0.2550	0.2306		0.2600	0.2398		0.2650	0.2490
D4	0.2500	0.2114	E4	0.2550	0.2206	F4	0.2600	0.2298
	0.2500	0.2214		0.2550	0.2306		0.2600	0.2398
	0.2550	0.2306		0.2600	0.2398		0.2650	0.2490
	0.2550	0.2206		0.2600	0.2298		0.2650	0.2390
D5	0.2500	0.2014	E5	0.2550	0.2106	F5	0.2600	0.2198
	0.2500	0.2114		0.2550	0.2206		0.2600	0.2298
	0.2550	0.2206		0.2600	0.2298		0.2650	0.2390
	0.2550	0.2106		0.2600	0.2198		0.2650	0.2290
D6	0.2500	0.1914	E6	0.2550	0.2006	F6	0.2600	0.2098
	0.2500	0.2014		0.2550	0.2106		0.2600	0.2198
	0.2550	0.2106		0.2600	0.2198		0.2650	0.2290
	0.2550	0.2006		0.2600	0.2098		0.2650	0.2190
D7	0.2500	0.1814	E7	0.2550	0.1906	F7	0.2600	0.1998
	0.2500	0.1914		0.2550	0.2006		0.2600	0.2098
	0.2550	0.2006		0.2600	0.2098		0.2650	0.2190
	0.2550	0.1906		0.2600	0.1998		0.2650	0.2090
D8	0.2500	0.1714	E8	0.2550	0.1806	F8	0.2600	0.1898
	0.2500	0.1814		0.2550	0.1906		0.2600	0.1998
	0.2550	0.1906		0.2600	0.1998		0.2650	0.2090
	0.2550	0.1806		0.2600	0.1898		0.2650	0.1990
D9	0.2500	0.1614	E9	0.2550	0.1706	F9	0.2600	0.1798
	0.2500	0.1714		0.2550	0.1806		0.2600	0.1898
	0.2550	0.1806		0.2600	0.1898		0.2650	0.1990
	0.2550	0.1706		0.2600	0.1798		0.2650	0.1890

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y					
G2	0.2650	0.2590	H2	0.2700	0.2682	I2	0.2750	0.2774	J2	0.2800	0.2866	K2	0.2850	0.2958	L2	0.2900	0.3050	M2	0.2950	0.3142		
	0.2650	0.2690		0.2700	0.2782		0.2750	0.2874		0.2800	0.2966		0.2850	0.3058		0.2900	0.3150		0.2950	0.3242		
	0.2700	0.2782		0.2750	0.2874		0.2800	0.2966		0.2850	0.3058		0.2900	0.3150		0.2950	0.3242		0.3000	0.3334		
G3	0.2700	0.2682	H3	0.2750	0.2774	I3	0.2800	0.2866	J3	0.2850	0.2958	K3	0.2900	0.3050	L3	0.2950	0.3142	M3	0.3000	0.3234		
	0.2650	0.2490		0.2700	0.2582		0.2750	0.2674		0.2800	0.2766		0.2850	0.2858		0.2900	0.2950		0.2950	0.3042	0.2950	0.3142
	0.2650	0.2590		0.2700	0.2682		0.2750	0.2774		0.2800	0.2866		0.2850	0.2958		0.2900	0.3050		0.2950	0.3142	0.3000	0.3234
G4	0.2700	0.2682	H4	0.2750	0.2774	I4	0.2800	0.2866	J4	0.2850	0.2958	K4	0.2900	0.3050	L4	0.2950	0.3142	M4	0.3000	0.3234		
	0.2700	0.2582		0.2750	0.2674		0.2800	0.2766		0.2850	0.2858		0.2900	0.2950		0.2950	0.3042		0.3000	0.3134		
	0.2700	0.2482		0.2750	0.2574		0.2800	0.2666		0.2850	0.2758		0.2900	0.2850		0.2950	0.2942		0.3000	0.3034		
G5	0.2650	0.2290	H5	0.2700	0.2382	I5	0.2750	0.2474	J5	0.2800	0.2566	K5	0.2850	0.2658	L5	0.2900	0.2750	M5	0.2950	0.2842		
	0.2650	0.2390		0.2700	0.2482		0.2750	0.2574		0.2800	0.2666		0.2850	0.2758		0.2900	0.2850		0.2950	0.2942	0.3000	0.3034
	0.2700	0.2482		0.2750	0.2574		0.2800	0.2666		0.2850	0.2758		0.2900	0.2850		0.2950	0.2942		0.3000	0.2934		
G6	0.2650	0.2190	H6	0.2700	0.2282	I6	0.2750	0.2374	J6	0.2800	0.2466	K6	0.2850	0.2558	L6	0.2900	0.2650	M6	0.2950	0.2742		
	0.2650	0.2290		0.2700	0.2382		0.2750	0.2474		0.2800	0.2566		0.2850	0.2658		0.2900	0.2750		0.2950	0.2842	0.3000	0.2934
	0.2700	0.2382		0.2750	0.2474		0.2800	0.2566		0.2850	0.2658		0.2900	0.2750		0.2950	0.2842		0.3000	0.2834		
G7	0.2650	0.2090	H7	0.2700	0.2182	I7	0.2750	0.2274	J7	0.2800	0.2366	K7	0.2850	0.2458	L7	0.2900	0.2550	M7	0.2950	0.2642		
	0.2650	0.2190		0.2700	0.2282		0.2750	0.2374		0.2800	0.2466		0.2850	0.2558		0.2900	0.2650		0.2950	0.2742	0.3000	0.2834
	0.2700	0.2282		0.2750	0.2374		0.2800	0.2466		0.2850	0.2558		0.2900	0.2650		0.2950	0.2742		0.3000	0.2734		
G8	0.2650	0.1990	H8	0.2700	0.2082	I8	0.2750	0.2174	J8	0.2800	0.2266	K8	0.2850	0.2358	L8	0.2900	0.2450	M8	0.2950	0.2542		
	0.2650	0.2090		0.2700	0.2182		0.2750	0.2274		0.2800	0.2366		0.2850	0.2458		0.2900	0.2550		0.2950	0.2642	0.3000	0.2734
	0.2700	0.2182		0.2750	0.2274		0.2800	0.2366		0.2850	0.2458		0.2900	0.2550		0.2950	0.2642		0.3000	0.2634		
G9	0.2650	0.1890	H9	0.2700	0.1982	I9	0.2750	0.2074	J9	0.2800	0.2166	K9	0.2850	0.2258	L9	0.2900	0.2350	M9	0.2950	0.2442		
	0.2650	0.2090		0.2700	0.2082		0.2750	0.2174		0.2800	0.2266		0.2850	0.2358		0.2900	0.2450		0.2950	0.2542	0.3000	0.2634
	0.2700	0.2082		0.2750	0.2174		0.2800	0.2266		0.2850	0.2358		0.2900	0.2450		0.2950	0.2542		0.3000	0.2534		

### Bin Code of Chromaticity Coordinates

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y
51	0.2507	0.2228	61	0.2575	0.2269	71	0.2585	0.2378	81	0.2653	0.2419	91	0.2692	0.2494
	0.2536	0.2194		0.2546	0.2303		0.2614	0.2344		0.2624	0.2453		0.2663	0.2528
	0.2575	0.2269		0.2585	0.2378		0.2653	0.2419		0.2663	0.2528		0.2692	0.2494
	0.2546	0.2303		0.2614	0.2344		0.2624	0.2453		0.2692	0.2494		0.2731	0.2569
52	0.2536	0.2194	62	0.2604	0.2235	72	0.2614	0.2344	82	0.2682	0.2385	92	0.2721	0.2460
	0.2565	0.2160		0.2575	0.2269		0.2643	0.2310		0.2653	0.2419		0.2692	0.2494
	0.2604	0.2235		0.2614	0.2344		0.2682	0.2385		0.2692	0.2494		0.2721	0.2460
	0.2575	0.2269		0.2643	0.2310		0.2653	0.2419		0.2721	0.2460		0.2760	0.2535
53	0.2565	0.2160	63	0.2633	0.2201	73	0.2643	0.2310	83	0.2711	0.2351	93	0.2750	0.2426
	0.2594	0.2126		0.2604	0.2235		0.2672	0.2276		0.2682	0.2385		0.2721	0.2460
	0.2633	0.2201		0.2643	0.2310		0.2711	0.2351		0.2721	0.2460		0.2760	0.2535
	0.2604	0.2235		0.2672	0.2276		0.2682	0.2385		0.2750	0.2426		0.2789	0.2501
54	0.2594	0.2126	64	0.2662	0.2167	74	0.2672	0.2276	84	0.2740	0.2317	94	0.2779	0.2392
	0.2623	0.2092		0.2633	0.2201		0.2701	0.2242		0.2711	0.2351		0.2740	0.2317
	0.2662	0.2167		0.2672	0.2276		0.2740	0.2317		0.2779	0.2392		0.2818	0.2467
	0.2633	0.2201		0.2701	0.2242		0.2711	0.2351		0.2779	0.2392		0.2818	0.2467
55	0.2623	0.2092	65	0.2691	0.2133	75	0.2701	0.2242	85	0.2769	0.2283	95	0.2808	0.2358
	0.2652	0.2058		0.2662	0.2167		0.2730	0.2208		0.2740	0.2317		0.2779	0.2392
	0.2691	0.2133		0.2701	0.2242		0.2769	0.2283		0.2808	0.2358		0.2818	0.2467
	0.2662	0.2167		0.2730	0.2208		0.2740	0.2317		0.2808	0.2358		0.2847	0.2433
56	0.2652	0.2058	66	0.2720	0.2099	76	0.2730	0.2208	86	0.2798	0.2249	96	0.2837	0.2324
	0.2681	0.2024		0.2691	0.2133		0.2759	0.2174		0.2769	0.2283		0.2798	0.2249
	0.2720	0.2099		0.2730	0.2208		0.2798	0.2249		0.2808	0.2358		0.2847	0.2433
	0.2691	0.2133		0.2759	0.2174		0.2769	0.2283		0.2837	0.2324		0.2876	0.2399
57	0.2681	0.2024	67	0.2749	0.2065	77	0.2759	0.2174	87	0.2827	0.2215	97	0.2866	0.2290
	0.2710	0.1990		0.2720	0.2099		0.2788	0.2140		0.2798	0.2249		0.2837	0.2324
	0.2749	0.2065		0.2759	0.2174		0.2827	0.2215		0.2837	0.2324		0.2876	0.2399
	0.2720	0.2099		0.2788	0.2140		0.2798	0.2249		0.2866	0.2290		0.2905	0.2365
58	0.2710	0.1990	68	0.2778	0.2031	78	0.2788	0.2140	88	0.2856	0.2181	98	0.2895	0.2256
	0.2739	0.1956		0.2749	0.2065		0.2817	0.2106		0.2827	0.2215		0.2866	0.2290
	0.2778	0.2031		0.2788	0.2140		0.2856	0.2181		0.2866	0.2290		0.2905	0.2365
	0.2749	0.2065		0.2817	0.2106		0.2827	0.2215		0.2895	0.2256		0.2934	0.2331

### Luminous Flux

Unit : lm

Bin	Min.	Max.
L11	11.00	12.00
L12	12.00	13.00
L13	13.00	14.00
L14	14.00	15.00
L15	15.00	16.00
L16	16.00	17.00
L17	17.00	18.00
L18	18.00	19.00
L19	19.00	20.00
L20	20.00	21.00
L21	21.00	22.00

Note: Tolerance of Luminous Intensity: ±7%.

### V<sub>F</sub> (Forward Voltage Spec. Setup)

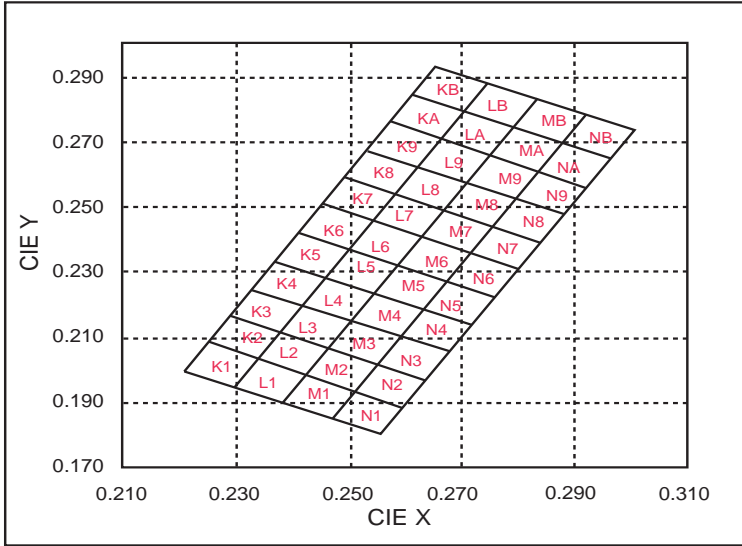
Unit : V

Groups					Bin	Min.	Max.	
K	H	E	Q	F	Y	4-2-3	2.7	2.8
					5-1-3	2.8	2.9	
					5-2-3	2.9	3.0	
					6-1-3	3.0	3.1	
					6-2-3	3.1	3.2	
					7-1-3	3.2	3.3	
7-2-3	3.3	3.4						

# TECHNICAL DATA

## SMD LED ( 62 SERIES ) BRIGHTNESS BIN SELECTION

### Chromaticity Diagram



### Bin Code of Chromaticity Coordinates

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y						
K1	0.2247	0.2082	K2	0.2288	0.2166	K3	0.2329	0.2250	K4	0.2457	0.2287	K5	0.2410	0.2419	K6	0.2451	0.2504	K7	0.2492	0.2588						
	0.2206	0.1997		0.2247	0.2082		0.2288	0.2166		0.2416	0.2202		0.2370	0.2335		0.2416	0.2202		0.2370	0.2335	0.2416	0.2202	0.2370	0.2335	0.2416	0.2202
	0.2293	0.1949		0.2334	0.2034		0.2375	0.2118		0.2416	0.2202		0.2370	0.2335		0.2497	0.2371		0.2538	0.2456	0.2579	0.2540	0.2538	0.2456	0.2579	0.2540
	0.2334	0.2034		0.2375	0.2118		0.2416	0.2202		0.2370	0.2335		0.2497	0.2371		0.2538	0.2456		0.2579	0.2540	0.2538	0.2456	0.2579	0.2540	0.2538	0.2456
L1	0.2334	0.2034	L2	0.2375	0.2118	L3	0.2416	0.2202	L4	0.2544	0.2239	L5	0.2497	0.2371	L6	0.2538	0.2456	L7	0.2579	0.2540						
	0.2293	0.1949		0.2334	0.2034		0.2375	0.2118		0.2416	0.2202		0.2544	0.2239		0.2497	0.2371		0.2538	0.2456	0.2579	0.2540	0.2538	0.2456	0.2579	0.2540
	0.2380	0.1901		0.2421	0.1986		0.2462	0.2070		0.2503	0.2154		0.2457	0.2287		0.2584	0.2323		0.2625	0.2408	0.2666	0.2492	0.2625	0.2408	0.2666	0.2492
	0.2421	0.1986		0.2462	0.2070		0.2503	0.2154		0.2457	0.2287		0.2584	0.2323		0.2625	0.2408		0.2666	0.2492	0.2625	0.2408	0.2666	0.2492	0.2625	0.2408
M1	0.2421	0.1986	M2	0.2462	0.2070	M3	0.2503	0.2154	M4	0.2631	0.2191	M5	0.2584	0.2323	M6	0.2625	0.2408	M7	0.2666	0.2492						
	0.2380	0.1901		0.2421	0.1986		0.2462	0.2070		0.2590	0.2106		0.2544	0.2239		0.2584	0.2323		0.2625	0.2408	0.2666	0.2492	0.2625	0.2408	0.2666	0.2492
	0.2467	0.1853		0.2508	0.1938		0.2549	0.2022		0.2590	0.2106		0.2544	0.2239		0.2671	0.2275		0.2712	0.2360	0.2753	0.2444	0.2712	0.2360	0.2753	0.2444
	0.2508	0.1938		0.2549	0.2022		0.2590	0.2106		0.2544	0.2239		0.2671	0.2275		0.2712	0.2360		0.2753	0.2444	0.2712	0.2360	0.2753	0.2444	0.2712	0.2360
N1	0.2508	0.1938	N2	0.2549	0.2022	N3	0.2590	0.2106	N4	0.2718	0.2143	N5	0.2671	0.2275	N6	0.2712	0.2360	N7	0.2753	0.2444						
	0.2467	0.1853		0.2508	0.1938		0.2549	0.2022		0.2590	0.2106		0.2544	0.2239		0.2671	0.2275		0.2712	0.2360	0.2753	0.2444	0.2712	0.2360	0.2753	0.2444
	0.2554	0.1805		0.2595	0.1890		0.2636	0.1974		0.2677	0.2058		0.2590	0.2106		0.2718	0.2143		0.2671	0.2275	0.2712	0.2360	0.2753	0.2444	0.2712	0.2360
	0.2595	0.1890		0.2636	0.1974		0.2677	0.2058		0.2631	0.2191		0.2590	0.2106		0.2718	0.2143		0.2671	0.2275	0.2712	0.2360	0.2753	0.2444	0.2712	0.2360

Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y		
K8	0.2533	0.2672	K9	0.2574	0.2757	KA	0.2615	0.2842	KB	0.2656	0.2927		
	0.2492	0.2588		0.2533	0.2672		0.2574	0.2757		0.2615	0.2842	0.2656	0.2927
	0.2579	0.2540		0.2620	0.2624		0.2661	0.2709		0.2702	0.2794	0.2743	0.2879
	0.2620	0.2624		0.2661	0.2709		0.2702	0.2794		0.2743	0.2879	0.2743	0.2879
L8	0.2620	0.2624	L9	0.2661	0.2709	LA	0.2702	0.2794	LB	0.2743	0.2879		
	0.2579	0.2540		0.2620	0.2624		0.2661	0.2709		0.2702	0.2794	0.2743	0.2879
	0.2666	0.2492		0.2707	0.2576		0.2748	0.2661		0.2789	0.2746	0.2830	0.2831
	0.2707	0.2576		0.2748	0.2661		0.2789	0.2746		0.2830	0.2831	0.2830	0.2831
M8	0.2707	0.2576	M9	0.2748	0.2661	MA	0.2789	0.2746	MB	0.2830	0.2831		
	0.2666	0.2492		0.2707	0.2576		0.2748	0.2661		0.2789	0.2746	0.2830	0.2831
	0.2753	0.2444		0.2794	0.2528		0.2835	0.2613		0.2876	0.2698	0.2917	0.2783
	0.2794	0.2528		0.2835	0.2613		0.2876	0.2698		0.2917	0.2783	0.2917	0.2783
N8	0.2794	0.2528	N9	0.2835	0.2613	NA	0.2876	0.2698	NB	0.2917	0.2783		
	0.2753	0.2444		0.2794	0.2528		0.2835	0.2613		0.2876	0.2698	0.2917	0.2783
	0.2840	0.2396		0.2881	0.2480		0.2922	0.2565		0.2963	0.2650	0.2963	0.2650
	0.2881	0.2480		0.2922	0.2565		0.2963	0.2650		0.3004	0.2735	0.3004	0.2735

## Luminous Flux

Unit : lm

1 lm / Bin									2 lm / Bin					
Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y	Bin	CIE_x	CIE_y
18	18	19	18	18	19	18	18	19	T18	18	20	T50	50	52
19	19	20	19	19	20	19	19	20	T20	20	22	T52	52	54
20	20	21	20	20	21	20	20	21	T22	22	24	T54	54	56
21	21	22	21	21	22	21	21	22	T24	24	26	T56	56	58
22	22	23	22	22	23	22	22	23	T26	26	28	T58	58	60
23	23	24	23	23	24	23	23	24	T28	28	30	T60	60	62
24	24	25	24	24	25	24	24	25	T30	30	32	T62	62	64
25	25	26	25	25	26	25	25	26	T32	32	34	T64	64	66
26	26	27	26	26	27	26	26	27	T34	34	36	T66	66	68
27	27	28	27	27	28	27	27	28	T36	36	38	T68	68	70
28	28	29	28	28	29	28	28	29	T38	38	40	T70	70	72
29	29	30	29	29	30	29	29	30	T40	40	42	T72	72	74
30	30	31	30	30	31	30	30	31	T42	42	44	T74	74	76
31	31	32	31	31	32	31	31	32	T44	44	46	T76	76	78
32	32	33	32	32	33	32	32	33	T46	46	48	T78	78	80
33	33	34	33	33	34	33	33	34	T48	48	50	T80	80	82

Note: Tolerance of Luminous Intensity:  $\pm 7\%$ .

## $V_F$ (Forward Voltage Spec. Setup)

Unit : V

Single Chip			Two Chips					
Bin	Min.	Max.	Parallel			Serial		
			Bin	Min.	Max.	Bin	Min.	Max.
A	2.9	3.0	PA	2.9	3.0	S8	5.8	6.0
B	3.0	3.1	PB	3.0	3.1	S9	6.0	6.2
C	3.1	3.2	PC	3.1	3.2	SA	6.2	6.4
D	3.2	3.3	PD	3.2	3.3	SB	6.4	6.6
E	3.3	3.4	PE	3.3	3.4	SC	6.6	6.8
F	3.4	3.5	PF	3.4	3.5	SD	6.8	7.0
G	3.5	3.6	PG	3.5	3.6	SE	7.0	7.2

Note: Tolerance of Forward Voltage:  $\pm 0.05V$ .

# TECHNICAL DATA

## LED LAMPs BRIGHTNESS BIN SELECTION

### Brightness Bin Selection

Unit : mcd

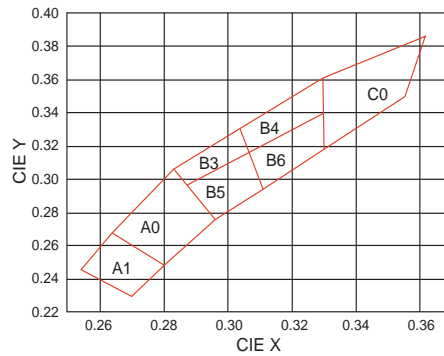
Item	Intensity Iv (mcd)	
Bin Code	Min.	Max.
a7	6.0	8.0
a6	8.0	10.0
a5	10.0	12.0
a4	12.0	15.0
a3	15.0	18.0
a2	18.0	22.0
a1	22.0	28.0
0	28.0	35.0
1	35.0	42.0
2	42.0	50.0
3	50.0	60.0
4	60.0	70.0
5	70.0	85.0
6	85.0	100
7	100	120
8	120	140
9	140	170
A	170	200
B	200	240
C	240	285
D	285	360
E	360	450
F	450	565
G	565	715
H	715	900
J	900	1,125
K	1,125	1,425
L	1,425	1,800
M	1,800	2,250
N	2,250	2,850
P	2,850	3,600
Q	3,600	4,500
R	4,500	5,650
S	5,650	7,150
T	7,150	9,000
U	9,000	11,250
V	11,250	14,250
W	14,250	18,000
X	18,000	22,500
Y	22,500	28,500
Z	28,500	36,000

### Cool White / CIE Chromaticity Diagram

( $I_f=20\text{mA}$  /  $T_a=25^\circ\text{C}$ )

Color Ranks		CIE			
A1	X	0.255	0.264	0.280	0.270
	Y	0.245	0.267	0.248	0.230
A0	X	0.264	0.283	0.296	0.280
	Y	0.267	0.305	0.267	0.248
B3	X	0.283	0.304	0.307	0.287
	Y	0.305	0.330	0.315	0.295
B4	X	0.304	0.330	0.330	0.307
	Y	0.330	0.360	0.339	0.315
B5	X	0.287	0.307	0.311	0.296
	Y	0.295	0.315	0.294	0.276
B6	X	0.307	0.330	0.330	0.311
	Y	0.315	0.339	0.318	0.294
C0	X	0.330	0.361	0.355	0.330
	Y	0.360	0.385	0.350	0.318

Note: Measurement uncertainty of the color coordinates  $\pm 0.01$ .

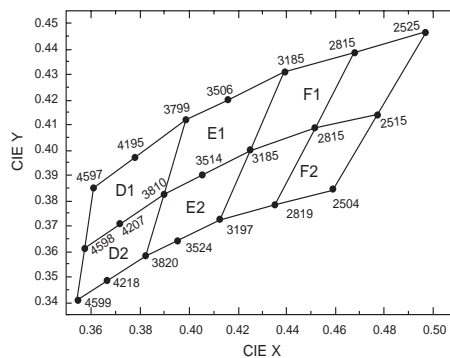


### Warm White / CIE Chromaticity Diagram

( $I_f=20\text{mA}$  /  $T_a=25^\circ\text{C}$ )

Color Ranks		CIE			
D1	X	0.357	0.361	0.398	0.389
	Y	0.361	0.385	0.411	0.382
D2	X	0.354	0.357	0.389	0.382
	Y	0.340	0.361	0.382	0.358
E1	X	0.389	0.398	0.439	0.425
	Y	0.382	0.411	0.431	0.400
E2	X	0.382	0.389	0.425	0.412
	Y	0.358	0.382	0.400	0.372
F1	X	0.425	0.439	0.497	0.477
	Y	0.400	0.431	0.466	0.413
F2	X	0.412	0.425	0.477	0.458
	Y	0.372	0.400	0.413	0.383

Note: Measurement uncertainty of the color coordinates  $\pm 0.01$ .

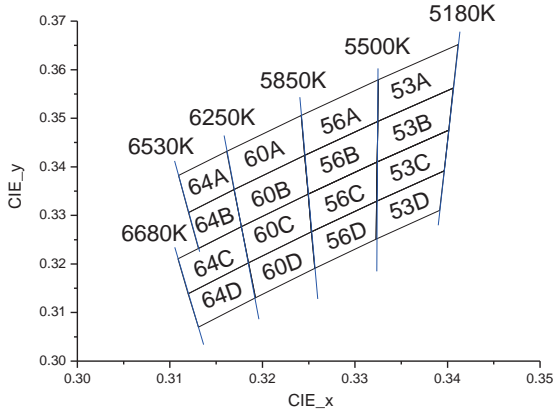


## DIGITAL DISPLAY BRIGHTNESS BIN SELECTION

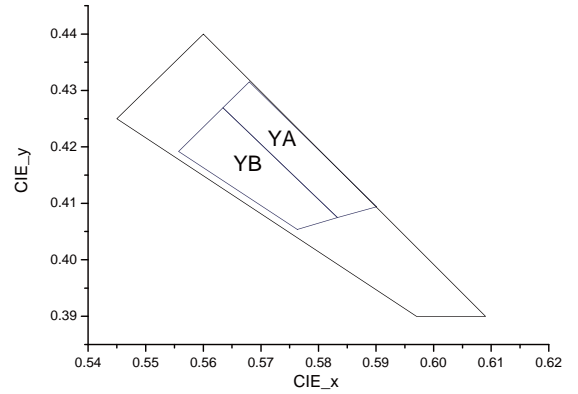
Bin Code	Brightness Range ( $\mu\text{cd}$ )	
	Min.	Max.
C	70	140
D	110	220
E	180	360
F	280	560
G	450	900
H	750	1200
J	1050	1680
K	1400	2300
L	2000	3200
M	2800	4500
N	4000	6400
P	5600	8900
Q	7800	12500
R	11000	17600
S	15000	24000
T	21000	34000
U	30000	48000
V	42000	67000
W	59000	94000
X	83000	133000
Y	116000	186000
Z	158800	254000

# AUTOMOTIVE BIN SELECTION

## Exterior White / Cool-White Bin Structure



## Amber Bin Structure



## Cool-White Bin Coordinates

Bin	CIE X	CIE Y	Bin	CIE X	CIE Y	Bin	CIE X	CIE Y
64A	0.3109	0.3382	60C	0.3177	0.3277	53A	0.3325	0.3579
	0.3161	0.3432		0.3249	0.3344		0.3412	0.3652
	0.3169	0.3353		0.3253	0.3266		0.3406	0.3562
	0.3120	0.3306		0.3185	0.3203		0.3325	0.3493
Reference Range: 6240~6530K			Reference Range: 5850~6240K			Reference Range: 5180~5500K		
64B	0.3120	0.3306	60D	0.3185	0.3203	53B	0.3325	0.3493
	0.3169	0.3353		0.3253	0.3266		0.3406	0.3562
	0.3177	0.3277		0.3256	0.3191		0.3401	0.3476
	0.3131	0.3232		0.3192	0.3131		0.3324	0.3410
Reference Range: 6240~6530K			Reference Range: 5850~6240K			Reference Range: 5180~5500K		
64C	0.3109	0.3211	56A	0.3242	0.3506	53C	0.3324	0.3410
	0.3177	0.3277		0.3325	0.3579		0.3401	0.3476
	0.3185	0.3203		0.3325	0.3493		0.3396	0.3392
	0.3120	0.3139		0.3246	0.3424		0.3323	0.3329
Reference Range: 6240~6680K			Reference Range: 5500~5850K			Reference Range: 5180~5500K		
64D	0.3120	0.3139	56B	0.3246	0.3424	53D	0.3323	0.3329
	0.3185	0.3203		0.3325	0.3493		0.3396	0.3392
	0.3192	0.3131		0.3324	0.3410		0.3392	0.3310
	0.3131	0.3070		0.3249	0.3344		0.3323	0.3251
Reference Range: 6240~6680K			Reference Range: 5500~5850K			Reference Range: 5180~5500K		
60A	0.3161	0.3432	56C	0.3249	0.3344			
	0.3242	0.3506		0.3324	0.3410			
	0.3246	0.3424		0.3323	0.3329			
	0.3169	0.3353		0.3253	0.3266			
Reference Range: 5850~6240K			Reference Range: 5500~5850K					
60B	0.3169	0.3353	56D	0.3253	0.3266			
	0.3246	0.3424		0.3323	0.3329			
	0.3249	0.3344		0.3323	0.3251			
	0.3177	0.3277		0.3256	0.3191			
Reference Range: 5850~6240K			Reference Range: 5500~5850K					

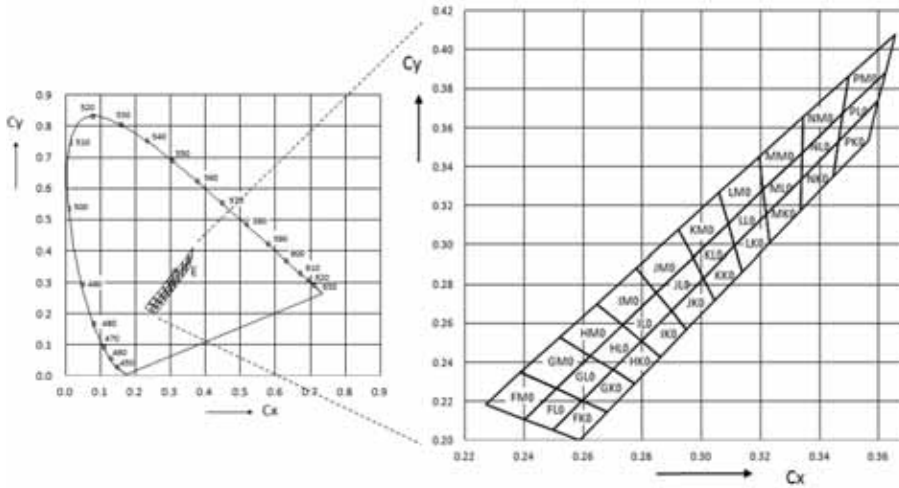
## Amber Bin Coordinates

Bin	CIE X	CIE Y
YA	0.5680	0.4315
	0.5634	0.4269
	0.5833	0.4075
	0.5901	0.4094
YB	0.5763	0.4054
	0.5833	0.4075
	0.5634	0.4269
	0.5557	0.4192

# TECHNICAL DATA

## AUTOMOTIVE BIN SELECTION

Interior / White



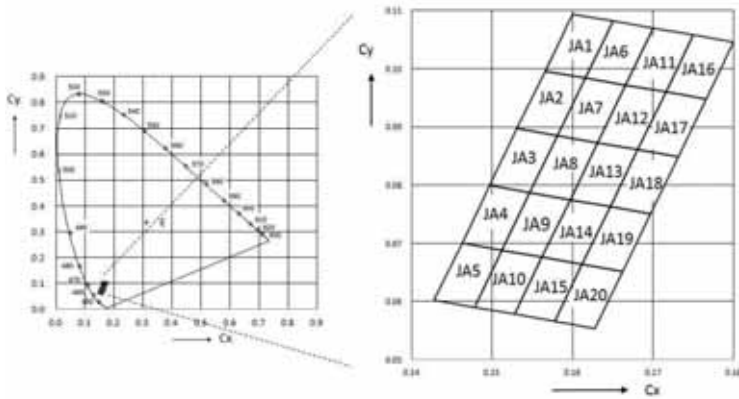
Bin Range of Chromaticity Coordinates Specifications

Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
FK0	0.2589	0.2000	NK0	0.3339	0.3336	LLO	0.3113	0.2992	JMO	0.2848	0.2757
	0.2498	0.2053		0.3335	0.3172		0.3090	0.3108		0.2780	0.2883
	0.2597	0.2204		0.3447	0.3347		0.3209	0.3281		0.2922	0.3077
	0.2682	0.2146		0.3465	0.3530		0.3219	0.3154		0.2971	0.2935
GK0	0.2682	0.2146	PK0	0.3465	0.3530	ML0	0.3341	0.3472	KMO	0.2971	0.2935
	0.2597	0.2204		0.3447	0.3347		0.3209	0.3281		0.2922	0.3077
	0.2700	0.2361		0.3567	0.3535		0.3219	0.3154		0.3060	0.3266
	0.2775	0.2292		0.3599	0.3735		0.3339	0.3336		0.3090	0.3108
HK0	0.2775	0.2292	FL0	0.2498	0.2053	NLO	0.3341	0.3472	LMO	0.3090	0.3108
	0.2700	0.2361		0.2402	0.2108		0.3339	0.3336		0.3060	0.3266
	0.2797	0.2509		0.2509	0.2264		0.3465	0.3530		0.3196	0.3451
	0.2861	0.2427		0.2597	0.2204		0.3479	0.3673		0.3209	0.3281
IK0	0.2861	0.2427	GLO	0.2597	0.2204	PLO	0.3479	0.3673	MMO	0.3345	0.3654
	0.2797	0.2509		0.2509	0.2264		0.3465	0.3530		0.3196	0.3451
	0.2898	0.2664		0.2624	0.2431		0.3599	0.3735		0.3209	0.3281
	0.2950	0.2568		0.2700	0.2361		0.3623	0.3882		0.3341	0.3472
JK0	0.2950	0.2568	HLO	0.2700	0.2361	FMO	0.2388	0.2348	NMO	0.3345	0.3654
	0.2898	0.2664		0.2624	0.2431		0.2269	0.2185		0.3341	0.3472
	0.3007	0.2830		0.2733	0.2590		0.2402	0.2108		0.3479	0.3673
	0.3045	0.2717		0.2797	0.2509		0.2509	0.2264		0.3498	0.3863
KK0	0.3045	0.2717	ILO	0.2797	0.2509	GMO	0.2509	0.2264	PMO	0.3498	0.3863
	0.3007	0.2830		0.2733	0.2590		0.2388	0.2348		0.3479	0.3673
	0.3113	0.2992		0.2848	0.2757		0.2520	0.2527		0.3623	0.3882
	0.3138	0.2862		0.2898	0.2664		0.2624	0.2431		0.3655	0.4079
LK0	0.3138	0.2862	JLO	0.2898	0.2664	HMO	0.2624	0.2431			
	0.3113	0.2992		0.2848	0.2757		0.2530	0.2527			
	0.3219	0.3154		0.2971	0.2935		0.2646	0.2700			
	0.3231	0.3008		0.3007	0.2830		0.2733	0.2590			
MK0	0.3339	0.3336	KLO	0.3007	0.2830	IMO	0.2733	0.2590			
	0.3219	0.3154		0.2971	0.2935		0.2646	0.2700			
	0.3231	0.3008		0.3090	0.3108		0.2780	0.2883			
	0.3335	0.3172		0.3113	0.2992		0.2848	0.2757			

Notes: Tolerance of Chromaticity Coordinates: ±0.01

# AUTOMOTIVE BIN SELECTION

Interior / Sky Blue



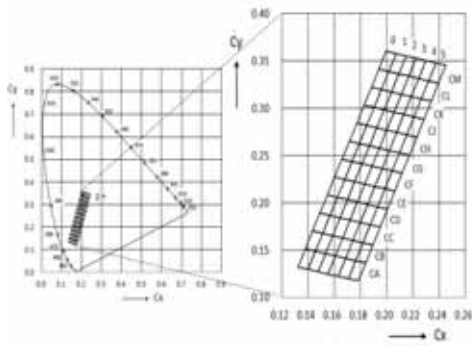
Bin Range of Chromaticity Coordinates Specifications

Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
JA1	0.1600	0.1094	JA9	0.1547	0.0787	JA17	0.1716	0.0960
	0.1650	0.1082		0.1597	0.0775		0.1766	0.0948
	0.1616	0.0984		0.1562	0.0676		0.1731	0.0849
	0.1566	0.0996		0.1512	0.0688		0.1681	0.0861
JA2	0.1566	0.0996	JA10	0.1512	0.0688	JA18	0.1681	0.0861
	0.1616	0.0984		0.1562	0.0676		0.1731	0.0849
	0.1581	0.0885		0.1528	0.0578		0.1697	0.0751
	0.1531	0.0897		0.1478	0.0590		0.1647	0.0763
JA3	0.1531	0.0897	JA11	0.1700	0.1070	JA19	0.1647	0.0763
	0.1581	0.0885		0.1750	0.1058		0.1697	0.0751
	0.1547	0.0787		0.1716	0.0960		0.1662	0.0652
	0.1497	0.0799		0.1666	0.0972		0.1612	0.0664
JA4	0.1497	0.0799	JA12	0.1666	0.0972	JA20	0.1612	0.0664
	0.1547	0.0787		0.1716	0.0960		0.1662	0.0652
	0.1512	0.0688		0.1681	0.0861		0.1628	0.0554
	0.1463	0.0700		0.1631	0.0873		0.1578	0.0566
JA5	0.1463	0.0700	JA13	0.1631	0.0873			
	0.1512	0.0688		0.1681	0.0861			
	0.1478	0.0590		0.1647	0.0763			
	0.1428	0.0602		0.1597	0.0775			
JA6	0.1650	0.1082	JA14	0.1597	0.0775			
	0.1700	0.1070		0.1647	0.0763			
	0.1666	0.0972		0.1612	0.0664			
	0.1616	0.0984		0.1562	0.0676			
JA7	0.1616	0.0984	JA15	0.1562	0.0676			
	0.1666	0.0972		0.1612	0.0664			
	0.1631	0.0873		0.1578	0.0566			
	0.1581	0.0885		0.1528	0.0578			
JA8	0.1581	0.0885	JA16	0.1750	0.1058			
	0.1631	0.0873		0.1800	0.1046			
	0.1597	0.0775		0.1766	0.0948			
	0.1547	0.0787		0.1716	0.0960			



# AUTOMOTIVE BIN SELECTION

Interior / Ice Blue



Bin Range of Chromaticity Coordinates Specifications

Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
CM0	0.1940	0.3415	CL1	0.1960	0.3200
	0.1996	0.3605		0.2016	0.3390
	0.2072	0.3580		0.2092	0.3366
	0.2016	0.3390		0.2036	0.3176
CM1	0.2016	0.3390	CL2	0.2036	0.3176
	0.2072	0.3580		0.2092	0.3366
	0.2148	0.3556		0.2168	0.3341
	0.2092	0.3366		0.2112	0.3151
CM2	0.2092	0.3366	CL3	0.2112	0.3151
	0.2148	0.3556		0.2168	0.3341
	0.2224	0.3531		0.2244	0.3316
	0.2168	0.3341		0.2188	0.3126
CM3	0.2168	0.3341	CL4	0.2188	0.3126
	0.2224	0.3531		0.2244	0.3316
	0.2299	0.3506		0.2319	0.3291
	0.2244	0.3316		0.2264	0.3101
CM4	0.2244	0.3316	CL5	0.2264	0.3101
	0.2299	0.3506		0.2319	0.3291
	0.2375	0.3481		0.2395	0.3267
	0.2319	0.3291		0.2340	0.3077
CM5	0.2319	0.3291	CK0	0.1828	0.3035
	0.2375	0.3481		0.1884	0.3225
	0.2451	0.3457		0.1960	0.3200
	0.2395	0.3267		0.1904	0.3010
CL0	0.1884	0.3225	CK1	0.1904	0.3010
	0.1940	0.3415		0.1960	0.3200
	0.2016	0.3390		0.2036	0.3176
	0.1960	0.3200		0.1980	0.2986

Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
CK2	0.1980	0.2986	CH1	0.1792	0.2630
	0.2036	0.3176		0.1848	0.2820
	0.2112	0.3151		0.1924	0.2796
	0.2056	0.2961		0.1869	0.2606
CK3	0.2056	0.2961	CH2	0.1869	0.2606
	0.2112	0.3151		0.1924	0.2796
	0.2188	0.3126		0.2000	0.2771
	0.2132	0.2936		0.1945	0.2581
CK4	0.2132	0.2936	CH3	0.1945	0.2581
	0.2188	0.3126		0.2000	0.2771
	0.2264	0.3101		0.2077	0.2746
	0.2208	0.2911		0.2021	0.2556
CK5	0.2208	0.2911	CH4	0.2021	0.2556
	0.2264	0.3101		0.2077	0.2746
	0.2340	0.3077		0.2153	0.2721
	0.2284	0.2887		0.2097	0.2531
CJ0	0.1772	0.2845	CH5	0.2097	0.2531
	0.1828	0.3035		0.2153	0.2721
	0.1904	0.3010		0.2229	0.2697
	0.1848	0.2820		0.2173	0.2507
CJ1	0.1848	0.2820	CG0	0.1660	0.2465
	0.1904	0.3010		0.1716	0.2655
	0.1980	0.2986		0.1792	0.2630
	0.1924	0.2796		0.1736	0.2440
CJ2	0.1924	0.2796	CG1	0.1736	0.2440
	0.1980	0.2986		0.1792	0.2630
	0.2056	0.2961		0.1869	0.2606
	0.2000	0.2771		0.1813	0.2416
CJ3	0.2000	0.2771	CG2	0.1813	0.2416
	0.2056	0.2961		0.1869	0.2606
	0.2132	0.2936		0.1945	0.2581
	0.2077	0.2746		0.1889	0.2391
CJ4	0.2077	0.2746	CG3	0.1889	0.2391
	0.2132	0.2936		0.1945	0.2581
	0.2208	0.2911		0.2021	0.2556
	0.2153	0.2721		0.1965	0.2366
CJ5	0.2153	0.2721	CG4	0.1965	0.2366
	0.2208	0.2911		0.2021	0.2556
	0.2284	0.2887		0.2097	0.2531
	0.2229	0.2697		0.2043	0.2341
CH0	0.1716	0.2655	CG5	0.2043	0.2341
	0.1772	0.2845		0.2097	0.2531
	0.1848	0.2820		0.2173	0.2507
	0.1792	0.2630		0.2118	0.2317

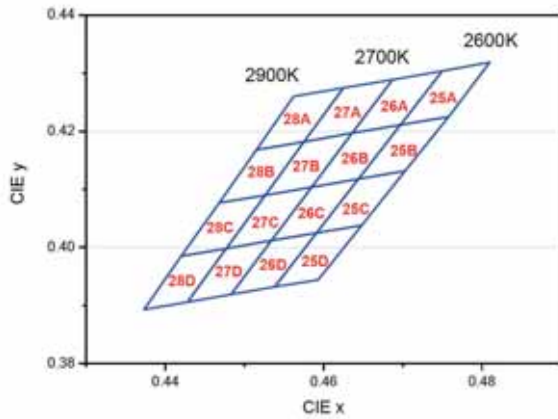
Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
CF0	0.1604	0.2275	CE5	0.1930	0.1961
	0.1660	0.2465		0.1986	0.2151
	0.1736	0.2440		0.2062	0.2127
	0.1680	0.2250		0.2007	0.1937
CF1	0.1680	0.2250	CD0	0.1492	0.1895
	0.1736	0.2440		0.1548	0.2085
	0.1813	0.2416		0.1624	0.2060
	0.1757	0.2226		0.1568	0.1870
CF2	0.1757	0.2226	CD1	0.1568	0.1870
	0.1813	0.2416		0.1624	0.2060
	0.1889	0.2391		0.1701	0.2036
	0.1833	0.2201		0.1645	0.1846
CF3	0.1833	0.2201	CD2	0.1645	0.1846
	0.1889	0.2391		0.1701	0.2036
	0.1965	0.2366		0.1777	0.2011
	0.1909	0.2176		0.1721	0.1821
CF4	0.1909	0.2176	CD3	0.1721	0.1821
	0.1965	0.2366		0.1777	0.2011
	0.2043	0.2341		0.1854	0.1986
	0.1986	0.2151		0.1798	0.1796
CF5	0.1986	0.2151	CD4	0.1798	0.1796
	0.2043	0.2341		0.1854	0.1986
	0.2118	0.2317		0.1930	0.1961
	0.2062	0.2127		0.1875	0.1771
CE0	0.1548	0.2085	CD5	0.1875	0.1771
	0.1604	0.2275		0.1930	0.1961
	0.1680	0.2250		0.2007	0.1937
	0.1624	0.2060		0.1951	0.1747
CE1	0.1624	0.2060	CC0	0.1436	0.1705
	0.1680	0.2250		0.1492	0.1895
	0.1757	0.2226		0.1568	0.1870
	0.1701	0.2036		0.1513	0.1680
CE2	0.1701	0.2036	CC1	0.1513	0.1680
	0.1757	0.2226		0.1568	0.1870
	0.1833	0.2201		0.1645	0.1846
	0.1777	0.2011		0.1589	0.1656
CE3	0.1777	0.2011	CC2	0.1589	0.1656
	0.1833	0.2201		0.1645	0.1846
	0.1909	0.2176		0.1721	0.1821
	0.1854	0.1986		0.1666	0.1631
CE4	0.1854	0.1986	CC3	0.1666	0.1631
	0.1909	0.2176		0.1721	0.1821
	0.1986	0.2151		0.1798	0.1796
	0.1930	0.1961		0.1742	0.1606

Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
CC4	0.1742	0.1606	CB5	0.1764	0.1391
	0.1798	0.1796		0.1819	0.1581
	0.1875	0.1771		0.1896	0.1557
	0.1819	0.1581		0.1840	0.1367
CC5	0.1819	0.1581	CA0	0.1324	0.1325
	0.1875	0.1771		0.1380	0.1515
	0.1951	0.1747		0.1457	0.1490
	0.1896	0.1557		0.1401	0.1300
CB0	0.1380	0.1515	CA1	0.1401	0.1300
	0.1436	0.1705		0.1457	0.1490
	0.1513	0.1680		0.1533	0.1466
	0.1457	0.1490		0.1477	0.1276
CB1	0.1457	0.1490	CA2	0.1477	0.1276
	0.1513	0.1680		0.1533	0.1466
	0.1589	0.1656		0.1610	0.1441
	0.1533	0.1466		0.1554	0.1251
CB2	0.1533	0.1466	CA3	0.1554	0.1251
	0.1589	0.1656		0.1610	0.1441
	0.1666	0.1631		0.1687	0.1416
	0.1610	0.1441		0.1631	0.1226
CB3	0.1610	0.1441	CA4	0.1631	0.1226
	0.1666	0.1631		0.1687	0.1416
	0.1742	0.1606		0.1764	0.1391
	0.1687	0.1416		0.1708	0.1201
CB4	0.1687	0.1416	CA5	0.1708	0.1201
	0.1742	0.1606		0.1764	0.1391
	0.1819	0.1581		0.1840	0.1367
	0.1764	0.1391		0.1785	0.1177

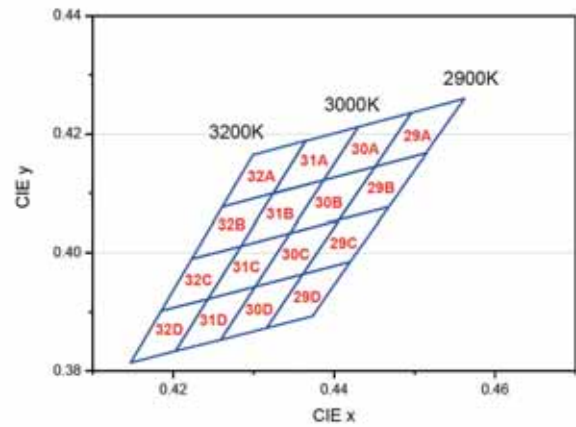
# AUTOMOTIVE BIN SELECTION

Interior / 5630/2835

2700K



3000K

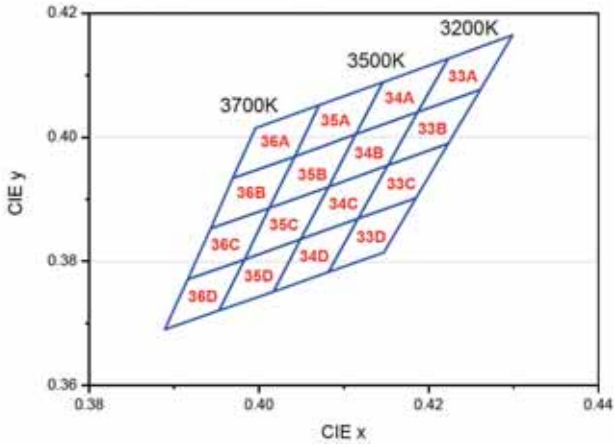


Bin Range of Chromaticity Coordinates Specifications

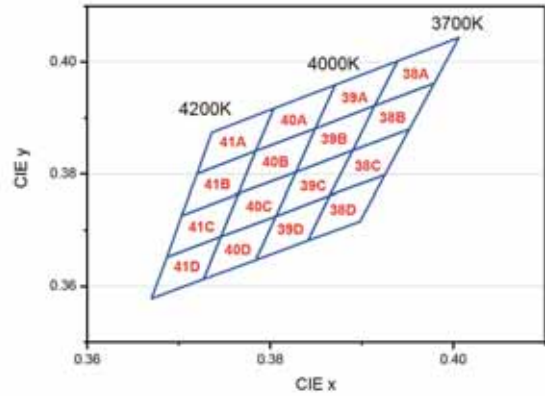
CCT	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
2700K	25A	0.4750	0.4304	25B	0.4697	0.4211
		0.4697	0.4211		0.4644	0.4118
		0.4758	0.4225		0.4703	0.4132
		0.4810	0.4319		0.4758	0.4225
	25C	0.4644	0.4118	25D	0.4591	0.4025
		0.4591	0.4025		0.4538	0.3932
		0.4648	0.4038		0.4593	0.3944
		0.4703	0.4132		0.4648	0.4038
	26A	0.4687	0.4289	26B	0.4636	0.4197
		0.4636	0.4197		0.4585	0.4104
		0.4697	0.4211		0.4644	0.4118
		0.4750	0.4304		0.4697	0.4211
	26C	0.4585	0.4104	26D	0.4534	0.4012
		0.4534	0.4012		0.4483	0.3919
		0.4591	0.4025		0.4538	0.3932
		0.4644	0.4118		0.4591	0.4025
	27A	0.4625	0.4275	27B	0.4575	0.4182
		0.4575	0.4182		0.4526	0.4090
		0.4636	0.4197		0.4585	0.4104
		0.4687	0.4289		0.4636	0.4197
	27C	0.4526	0.4090	27D	0.4477	0.3998
		0.4477	0.3998		0.4428	0.3906
		0.4534	0.4012		0.4483	0.3919
		0.4585	0.4104		0.4534	0.4012
	28A	0.4562	0.4260	28B	0.4515	0.4168
		0.4515	0.4168		0.4468	0.4077
		0.4575	0.4182		0.4526	0.4090
		0.4625	0.4275		0.4575	0.4182
28C	0.4468	0.4077	28D	0.4420	0.3985	
	0.4420	0.3985		0.4373	0.3893	
	0.4477	0.3998		0.4428	0.3906	
	0.4526	0.4090		0.4477	0.3998	

CCT	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
3000K	29A	0.4496	0.4236	29B	0.4451	0.4145
		0.4451	0.4145		0.4406	0.4055
		0.4514	0.4168		0.4468	0.4077
		0.4562	0.4260		0.4515	0.4168
	29C	0.4406	0.4055	29D	0.4361	0.3964
		0.4361	0.3964		0.4316	0.3873
		0.4420	0.3985		0.4373	0.3893
		0.4468	0.4077		0.4420	0.3985
	30A	0.4430	0.4212	30B	0.4387	0.4122
		0.4387	0.4122		0.4345	0.4033
		0.4451	0.4145		0.4406	0.4055
		0.4496	0.4236		0.4451	0.4145
	30C	0.4345	0.4033	30D	0.4302	0.3943
		0.4302	0.3943		0.4259	0.3853
		0.4361	0.3964		0.4316	0.3873
		0.4406	0.4055		0.4361	0.3964
	31A	0.4364	0.4188	31B	0.4324	0.4100
		0.4324	0.4099		0.4284	0.4011
		0.4387	0.4122		0.4345	0.4033
		0.4430	0.4212		0.4387	0.4122
	31C	0.4284	0.4011	31D	0.4302	0.3943
		0.4243	0.3922		0.4259	0.3853
		0.4302	0.3943		0.4203	0.3834
		0.4345	0.4033		0.4243	0.3922
	32A	0.4299	0.4165	32B	0.4261	0.4077
		0.4261	0.4077		0.4223	0.3990
		0.4324	0.4100		0.4284	0.4011
		0.4365	0.4189		0.4324	0.4100
32C	0.4223	0.3990	32D	0.4243	0.3922	
	0.4185	0.3902		0.4203	0.3834	
	0.4243	0.3922		0.4147	0.3814	
	0.4284	0.4011		0.4185	0.3902	

3500K



4000K



Bin Range of Chromaticity Coordinates Specifications

Bin Range of Chromaticity Coordinates Specifications

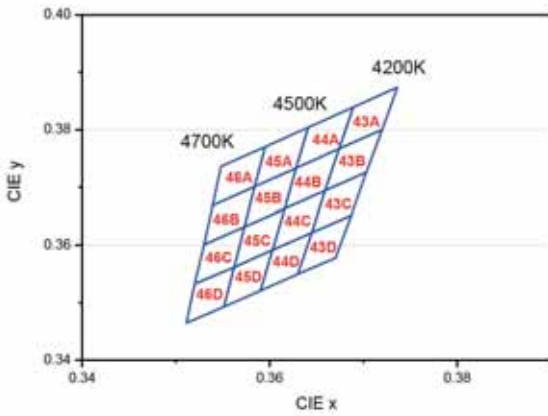
CCT	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
3500K	33A	0.4223	0.4127	33B	0.4187	0.4041
		0.4187	0.4041		0.4152	0.3955
		0.4261	0.4077		0.4223	0.3990
		0.4299	0.4165		0.4261	0.4077
	33C	0.4152	0.3955	33D	0.4117	0.3869
		0.4117	0.3869		0.4082	0.3783
		0.4185	0.3902		0.4147	0.3814
		0.4223	0.3990		0.4185	0.3902
	34A	0.4146	0.4089	34B	0.4114	0.4005
		0.4114	0.4005		0.4082	0.3920
		0.4187	0.4041		0.4152	0.3955
		0.4223	0.4127		0.4187	0.4041
	34C	0.4082	0.3920	34D	0.4049	0.3836
		0.4049	0.3836		0.4017	0.3751
		0.4117	0.3869		0.4082	0.3783
		0.4152	0.3955		0.4117	0.3869
	35A	0.4071	0.4052	35B	0.4042	0.3969
		0.4042	0.3969		0.4012	0.3886
		0.4114	0.4005		0.4082	0.3920
		0.4146	0.4089		0.4114	0.4005
	35C	0.4012	0.3886	35D	0.3983	0.3803
		0.3983	0.3803		0.3953	0.3721
		0.4049	0.3836		0.4017	0.3751
		0.4082	0.3920		0.4049	0.3836
	36A	0.3996	0.4015	36B	0.3969	0.3934
		0.3969	0.3934		0.3943	0.3853
		0.4042	0.3969		0.4012	0.3886
		0.4071	0.4052		0.4042	0.3969
36C	0.3943	0.3853	36D	0.3916	0.3771	
	0.3916	0.3771		0.3889	0.3690	
	0.3983	0.3803		0.3953	0.3721	
	0.4012	0.3886		0.3983	0.3803	

CCT	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
4000K	38A	0.3939	0.4002	38B	0.3914	0.3922
		0.3914	0.3922		0.3890	0.3842
		0.3979	0.3962		0.3952	0.3880
		0.4006	0.4044		0.3979	0.3962
		0.3890	0.3842		0.3865	0.3762
	38C	0.3865	0.3762	38D	0.3841	0.3682
		0.3925	0.3798		0.3898	0.3716
		0.3952	0.3880		0.3925	0.3798
		0.3871	0.3959		0.3849	0.3881
	39A	0.3849	0.3881	39B	0.3828	0.3803
		0.3914	0.3922		0.3890	0.3842
		0.3939	0.4002		0.3914	0.3922
		0.3828	0.3803		0.3806	0.3725
	39C	0.3806	0.3725	39D	0.3784	0.3647
		0.3865	0.3762		0.3841	0.3682
		0.3890	0.3842		0.3865	0.3762
		0.3804	0.3917		0.3784	0.3841
	40A	0.3784	0.3841	40B	0.3765	0.3765
		0.3849	0.3881		0.3828	0.3803
		0.3871	0.3959		0.3849	0.3881
		0.3765	0.3765		0.3746	0.3689
	40C	0.3746	0.3689	40D	0.3727	0.3613
		0.3806	0.3725		0.3784	0.3647
		0.3828	0.3803		0.3806	0.3725
		0.3736	0.3874		0.3720	0.3800
	41A	0.3720	0.3800	41B	0.3703	0.3726
		0.3784	0.3841		0.3765	0.3765
		0.3804	0.3917		0.3784	0.3841
0.3703		0.3726	0.3687		0.3652	
41C	0.3687	0.3652	41D	0.3670	0.3578	
	0.3746	0.3689		0.3727	0.3613	
	0.3765	0.3765		0.3746	0.3689	

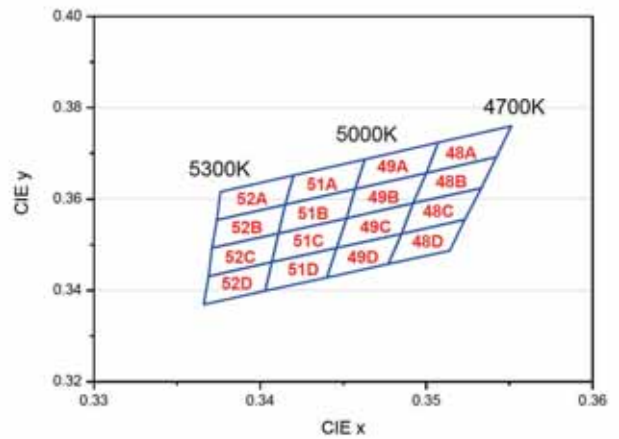
# AUTOMOTIVE BIN SELECTION

Interior / 5630/2835

4500K

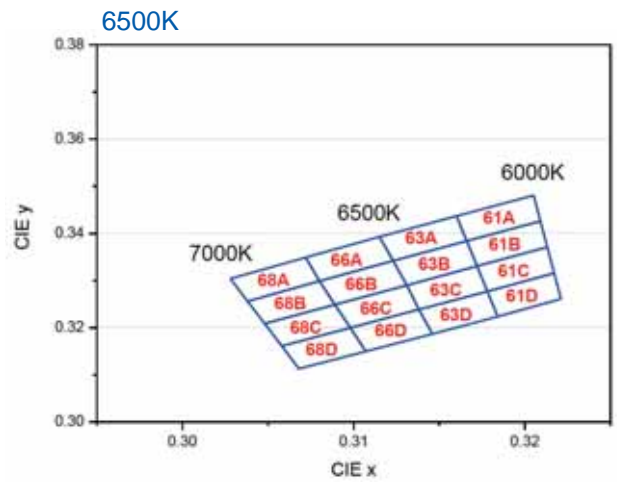
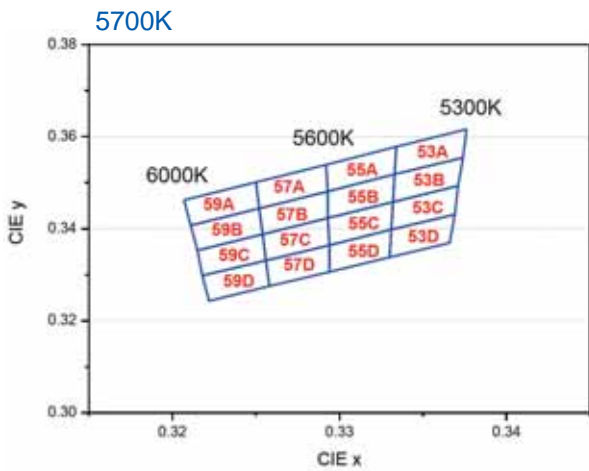


5000K



CCT	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
4500K	43A	0.3689	0.3839	43B	0.3674	0.3767
		0.3674	0.3767		0.3659	0.3694
		0.3720	0.3800		0.3703	0.3726
		0.3736	0.3874		0.3720	0.3800
	43C	0.3659	0.3694	43D	0.3645	0.3622
		0.3645	0.3622		0.3630	0.3550
		0.3687	0.3652		0.3670	0.3578
		0.3703	0.3726		0.3687	0.3652
	44A	0.3641	0.3804	44B	0.3628	0.3733
		0.3628	0.3733		0.3616	0.3663
		0.3674	0.3767		0.3659	0.3694
		0.3689	0.3839		0.3674	0.3767
	44C	0.3616	0.3663	44D	0.3603	0.3592
		0.3603	0.3592		0.3590	0.3521
		0.3645	0.3622		0.3630	0.3550
		0.3659	0.3694		0.3645	0.3622
	45A	0.3595	0.3770	45B	0.3584	0.3701
		0.3584	0.3701		0.3573	0.3632
		0.3628	0.3733		0.3616	0.3663
		0.3641	0.3804		0.3628	0.3733
	45C	0.3573	0.3632	45D	0.3562	0.3562
		0.3562	0.3562		0.3551	0.3493
		0.3603	0.3592		0.3590	0.3521
		0.3616	0.3663		0.3603	0.3592
	46A	0.3548	0.3736	46B	0.3539	0.3668
		0.3539	0.3668		0.3530	0.3601
		0.3584	0.3701		0.3573	0.3632
		0.3595	0.3770		0.3584	0.3701
46C	0.3530	0.3601	46D	0.3520	0.3533	
	0.3520	0.3533		0.3511	0.3465	
	0.3562	0.3562		0.3551	0.3493	
	0.3573	0.3632		0.3562	0.3562	

CCT	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
5000K	48A	0.3507	0.3724	48B	0.3500	0.3657
		0.3500	0.3657		0.3492	0.3591
		0.3542	0.3692		0.3533	0.3624
		0.3551	0.3760		0.3542	0.3692
	48C	0.3492	0.3591	48D	0.3485	0.3524
		0.3485	0.3524		0.3477	0.3458
		0.3523	0.3555		0.3514	0.3487
		0.3533	0.3624		0.3523	0.3555
	49A	0.3463	0.3687	49B	0.3457	0.3622
		0.3457	0.3622		0.3452	0.3558
		0.3500	0.3657		0.3492	0.3591
		0.3507	0.3724		0.3500	0.3657
	49C	0.3452	0.3558	49D	0.3446	0.3493
		0.3446	0.3493		0.3440	0.3428
		0.3485	0.3524		0.3477	0.3458
		0.3492	0.3591		0.3485	0.3524
	51A	0.3420	0.3652	51B	0.3415	0.3588
		0.3415	0.3588		0.3411	0.3525
		0.3457	0.3622		0.3452	0.3558
		0.3463	0.3687		0.3457	0.3622
	51C	0.3411	0.3525	51D	0.3407	0.3462
		0.3407	0.3462		0.3403	0.3399
		0.3446	0.3493		0.3440	0.3428
		0.3452	0.3558		0.3446	0.3493
	52A	0.3376	0.3616	52B	0.3374	0.3554
		0.3374	0.3554		0.3371	0.3493
		0.3415	0.3588		0.3411	0.3525
		0.3420	0.3652		0.3415	0.3588
52C	0.3371	0.3493	52D	0.3369	0.3431	
	0.3369	0.3431		0.3366	0.3369	
	0.3407	0.3462		0.3403	0.3399	
	0.3411	0.3525		0.3407	0.3462	



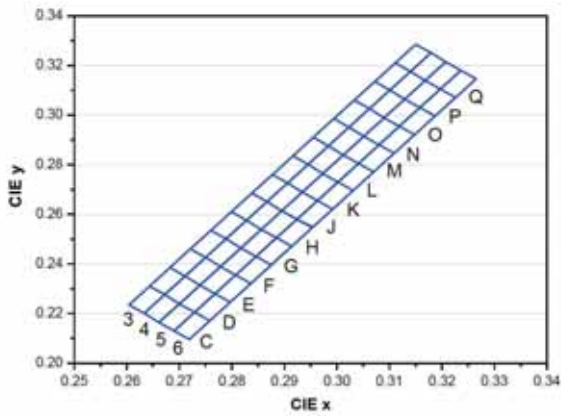
Bin Range of Chromaticity Coordinates Specifications

CCT	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
5700K	53A	0.3334	0.3578	53B	0.3333	0.3518
		0.3333	0.3518		0.3332	0.3458
		0.3374	0.3554		0.3371	0.3493
		0.3376	0.3616		0.3374	0.3554
	53C	0.3332	0.3458	53D	0.3331	0.3398
		0.3331	0.3398		0.3330	0.3338
		0.3369	0.3431		0.3366	0.3369
		0.3371	0.3493		0.3369	0.3431
	55A	0.3292	0.3539	55B	0.3293	0.3481
		0.3293	0.3481		0.3293	0.3423
		0.3333	0.3518		0.3332	0.3458
		0.3334	0.3578		0.3333	0.3518
	55C	0.3293	0.3423	55D	0.3294	0.3364
		0.3294	0.3364		0.3294	0.3306
		0.3331	0.3398		0.3330	0.3338
		0.3332	0.3458		0.3331	0.3398
	57A	0.3250	0.3501	57B	0.3252	0.3444
		0.3252	0.3444		0.3254	0.3388
		0.3293	0.3481		0.3293	0.3423
		0.3292	0.3539		0.3293	0.3481
	57C	0.3254	0.3388	57D	0.3256	0.3331
		0.3256	0.3331		0.3258	0.3275
		0.3294	0.3364		0.3294	0.3306
		0.3293	0.3423		0.3294	0.3364
	59A	0.3207	0.3462	59B	0.3211	0.3407
		0.3211	0.3407		0.3215	0.3353
		0.3252	0.3444		0.3254	0.3388
		0.3250	0.3501		0.3252	0.3444
	59C	0.3215	0.3353	59D	0.3218	0.3298
		0.3218	0.3298		0.3222	0.3243
		0.3256	0.3331		0.3258	0.3275
		0.3254	0.3388		0.3256	0.3331

CCT	Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
6500K	61A	0.3160	0.3437	61B	0.3166	0.3384
		0.3166	0.3384		0.3172	0.3331
		0.3209	0.3426		0.3213	0.3371
		0.3205	0.3481		0.3209	0.3426
	61C	0.3172	0.3331	61D	0.3178	0.3277
		0.3178	0.3277		0.3184	0.3224
		0.3217	0.3316		0.3221	0.3261
		0.3213	0.3371		0.3217	0.3316
	63A	0.3115	0.3393	63B	0.3123	0.3342
		0.3123	0.3342		0.3131	0.3290
		0.3166	0.3384		0.3172	0.3331
		0.3160	0.3437		0.3166	0.3384
	63C	0.3131	0.3290	63D	0.3138	0.3239
		0.3138	0.3239		0.3146	0.3187
		0.3178	0.3277		0.3184	0.3224
		0.3172	0.3331		0.3178	0.3277
	66A	0.3072	0.3349	66B	0.3080	0.3299
		0.3080	0.3299		0.3089	0.3249
		0.3123	0.3342		0.3131	0.3290
		0.3115	0.3393		0.3123	0.3342
	66C	0.3089	0.3249	66D	0.3098	0.3200
		0.3098	0.3200		0.3107	0.3150
		0.3138	0.3239		0.3146	0.3187
		0.3131	0.3290		0.3138	0.3239
	68A	0.3028	0.3304	68B	0.3038	0.3256
		0.3038	0.3256		0.3048	0.3209
		0.3080	0.3299		0.3089	0.3249
		0.3072	0.3349		0.3080	0.3299
	68C	0.3048	0.3209	68D	0.3058	0.3161
		0.3058	0.3161		0.3068	0.3113
		0.3098	0.3200		0.3107	0.3150
		0.3089	0.3249		0.3098	0.3200

# AUTOMOTIVE BIN SELECTION

## Interior / Backlight



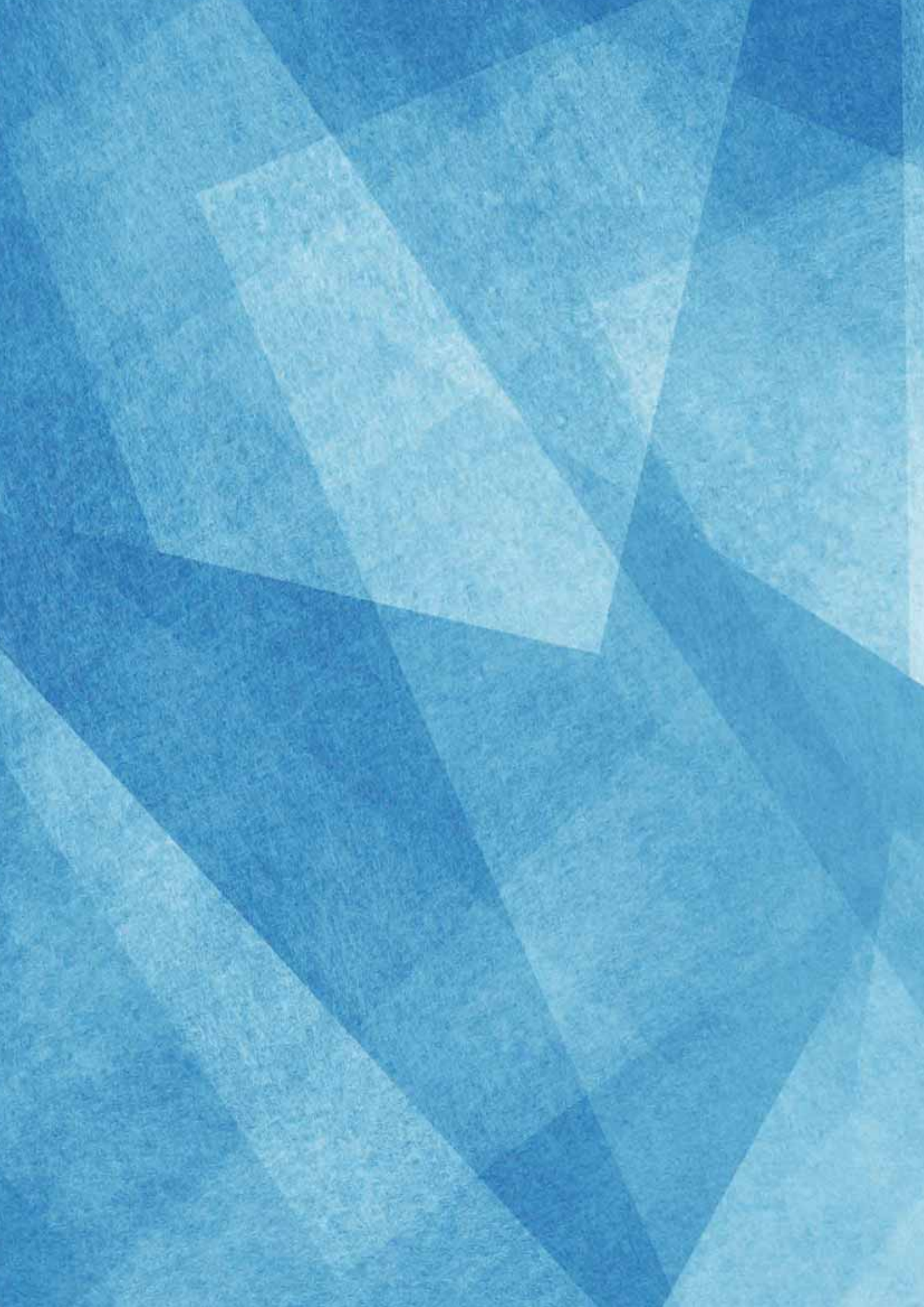
### Bin Range of Chromaticity Coordinates Specifications

Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
Q3	0.3140	0.3176	J3	0.2867	0.2651
	0.3111	0.3210		0.2838	0.2685
	0.3150	0.3285		0.2877	0.2760
	0.3179	0.3251		0.2906	0.2726
P3	0.3101	0.3101	Q4	0.3168	0.3139
	0.3072	0.3135		0.3140	0.3176
	0.3111	0.3210		0.3179	0.3251
	0.3140	0.3176		0.3207	0.3214
O3	0.3062	0.3026	P4	0.3129	0.3064
	0.3033	0.3060		0.3101	0.3101
	0.3072	0.3135		0.3140	0.3176
	0.3101	0.3101		0.3168	0.3139
N3	0.3023	0.2951	O4	0.3090	0.2989
	0.2994	0.2985		0.3062	0.3026
	0.3033	0.3060		0.3101	0.3101
	0.3062	0.3026		0.3129	0.3064
M3	0.2984	0.2876	N4	0.3051	0.2914
	0.2955	0.2910		0.3023	0.2951
	0.2994	0.2985		0.3062	0.3026
	0.3023	0.2951		0.3090	0.2989
L3	0.2945	0.2801	M4	0.3012	0.2839
	0.2916	0.2835		0.2984	0.2876
	0.2955	0.2910		0.3023	0.2951
	0.2984	0.2876		0.3051	0.2914
K3	0.2906	0.2726	L4	0.2973	0.2764
	0.2877	0.2760		0.2945	0.2801
	0.2916	0.2835		0.2984	0.2876
	0.2945	0.2801		0.3012	0.2839

Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
K4	0.2934	0.2689	P6	0.3187	0.2996
	0.2906	0.2726		0.3158	0.3030
	0.2945	0.2801		0.3197	0.3105
	0.2973	0.2764		0.3226	0.3071
J4	0.2895	0.2614	O6	0.3148	0.2921
	0.2867	0.2651		0.3119	0.2955
	0.2906	0.2726		0.3158	0.3030
	0.2934	0.2689		0.3187	0.2996
Q5	0.3197	0.3105	N6	0.3109	0.2846
	0.3168	0.3139		0.3080	0.2880
	0.3207	0.3214		0.3119	0.2955
	0.3236	0.3180		0.3148	0.2921
P5	0.3158	0.3030	M6	0.3070	0.2771
	0.3129	0.3064		0.3041	0.2805
	0.3168	0.3139		0.3080	0.2880
	0.3197	0.3105		0.3109	0.2846
O5	0.3119	0.2955	L6	0.3031	0.2696
	0.3090	0.2989		0.3002	0.2730
	0.3129	0.3064		0.3041	0.2805
	0.3158	0.3030		0.3070	0.2771
N5	0.3080	0.2880	K6	0.2992	0.2621
	0.3051	0.2914		0.2963	0.2655
	0.3090	0.2989		0.3002	0.2730
	0.3119	0.2955		0.3031	0.2696
M5	0.3041	0.2805	J6	0.2953	0.2546
	0.3012	0.2839		0.2924	0.2580
	0.3051	0.2914		0.2963	0.2655
	0.3080	0.2880		0.2992	0.2621
L5	0.3002	0.2730	H3	0.2828	0.2576
	0.2973	0.2764		0.2799	0.2610
	0.3012	0.2839		0.2838	0.2685
	0.3041	0.2805		0.2867	0.2651
K5	0.2963	0.2655	G3	0.2789	0.2501
	0.2934	0.2689		0.2760	0.2535
	0.2973	0.2764		0.2799	0.2610
	0.3002	0.2730		0.2828	0.2576
J5	0.2924	0.2580	F3	0.2750	0.2426
	0.2895	0.2614		0.2721	0.2460
	0.2934	0.2689		0.2760	0.2535
	0.2963	0.2655		0.2789	0.2501
Q6	0.3226	0.3071	E3	0.2711	0.2351
	0.3197	0.3105		0.2682	0.2385
	0.3236	0.3180		0.2721	0.2460
	0.3265	0.3146		0.2750	0.2426

Bin Code	CIE X	CIE Y	Bin Code	CIE X	CIE Y
D3	0.2672	0.2276	E5	0.2768	0.2280
	0.2643	0.2310		0.2739	0.2314
	0.2682	0.2385		0.2778	0.2389
	0.2711	0.2351		0.2807	0.2355
C3	0.2633	0.2201	D5	0.2729	0.2205
	0.2604	0.2235		0.2700	0.2239
	0.2643	0.2310		0.2739	0.2314
	0.2672	0.2276		0.2768	0.2280
H4	0.2856	0.2539	C5	0.2690	0.2130
	0.2828	0.2576		0.2661	0.2164
	0.2867	0.2651		0.2700	0.2239
	0.2895	0.2614		0.2729	0.2205
G4	0.2817	0.2464	H6	0.2914	0.2471
	0.2789	0.2501		0.2885	0.2505
	0.2828	0.2576		0.2924	0.2580
	0.2856	0.2539		0.2953	0.2546
F4	0.2778	0.2389	G6	0.2875	0.2396
	0.2750	0.2426		0.2846	0.2430
	0.2789	0.2501		0.2885	0.2505
	0.2817	0.2464		0.2914	0.2471
E4	0.2739	0.2314	F6	0.2836	0.2321
	0.2711	0.2351		0.2807	0.2355
	0.2750	0.2426		0.2846	0.2430
	0.2778	0.2389		0.2875	0.2396
D4	0.2700	0.2239	E6	0.2797	0.2246
	0.2672	0.2276		0.2768	0.2280
	0.2711	0.2351		0.2807	0.2355
	0.2739	0.2314		0.2836	0.2321
C4	0.2661	0.2164	D6	0.2758	0.2171
	0.2633	0.2201		0.2729	0.2205
	0.2672	0.2276		0.2768	0.2280
	0.2700	0.2239		0.2797	0.2246
H5	0.2885	0.2505	C6	0.2719	0.2096
	0.2856	0.2539		0.2690	0.2130
	0.2895	0.2614		0.2729	0.2205
	0.2924	0.2580		0.2758	0.2171
G5	0.2846	0.2430			
	0.2817	0.2464			
	0.2856	0.2539			
	0.2885	0.2505			
F5	0.2807	0.2355			
	0.2778	0.2389			
	0.2817	0.2464			
	0.2846	0.2430			





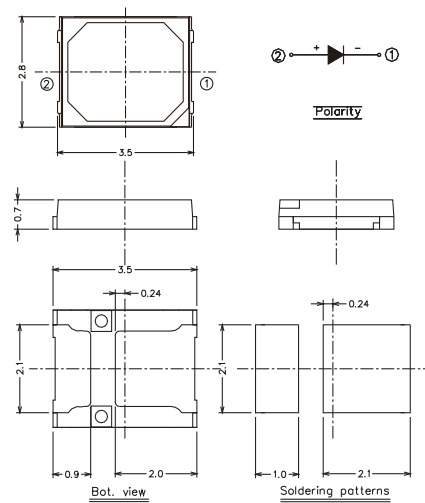
## VISIBLE LED

- 50** COLOR
- 55** HIGH POWER
- 57** DRIVER ON BOARD
- 60** Filament
- 61** Low Middle Power LED
- 79** UV
- 84** Flash LED
- 90** SMD LED
- 121** LED Lamps
- 133** LED Digital Displays
- 147** Signage LED
- 153** Automotive LED
- 166** Backlighting LED

Color | 2835



UNIT : mm

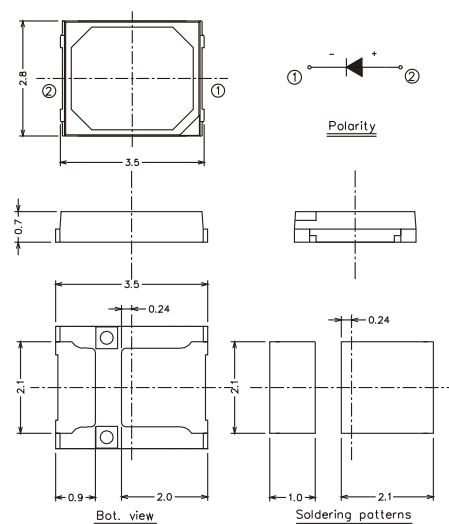


2835 / 0.2W / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	Wavelength / CCT (nm) (K)	Luminous Flux / Radiometric Power (lm/mW)
67-21S/B3C-D4555D5D72936Z6/2T	2.8x3.5x0.7	2.9-3.6	60mA	Royal Blue	445-455nm	2.5lm
67-21S/NDR2C-P5080B2C12029Z6/2T	2.8x3.5x0.7	2.0-2.9	60mA	Deep Red	650-680nm	40lm
67-21S/NFR2C-P2050A3B21522Z6/2T	2.8x3.5x0.7	1.5-2.2	60mA	Far Red	720-750nm	15lm
67-21S/G1C-D1530D5D83039Z2/2T	2.8x3.5x0.7	3.0-3.9	60mA	Green	515-530nm	2.5lm



UNIT : mm



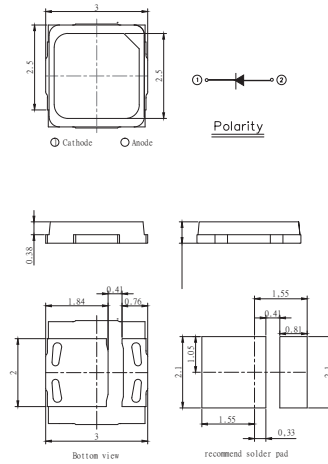
2835 / 0.5W / 150mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	Wavelength / CCT (nm) (K)	Luminous Flux / Radiometric Power (lm/mW)
67-21S/NB3C-D4555B4L12835Z15/2T	2.8x3.5x0.7	2.8-3.5	150mA	Royal Blue	445-455nm	7.0lm
67-21S/NDR3C-P5080C1C51827Z15/2T	2.8x3.5x0.7	1.8-2.7	150mA	Deep Red	650-680nm	80mW
67-21S/NFR3C-P2050B2C41829Z15/2T	2.8x3.5x0.7	1.8-2.9	150mA	Far Red	720-750nm	40mW
67-21S/RK3C-P5080C1C52834Z15/2T	2.8x3.5x0.7	2.8-3.4	150mA	Deep Red	640-670nm	80mW

Color | XI3030



UNIT : mm



Color

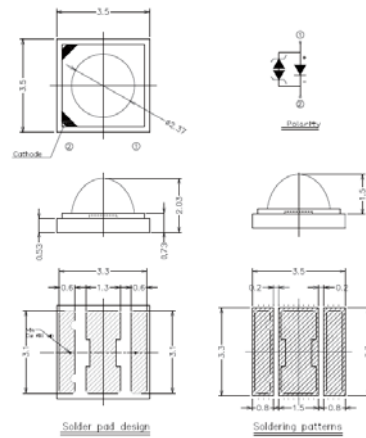
XI3030 / 0.5W / 150mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	Wavelength / CCT (nm) (K)	Luminous Flux / Radiometric Power (lm/mW)
XI3030P/B3C-D5060T2T625312Z15/2N	3.0x3.0x0.63	2.5~3.1	150	Royal Blue	450-460nm	190mW
XI3030P/D3C-P4575S1S621271Z15/2N	3.0x3.0x0.63	2.1~2.7	150	Deep Red	645-675nm	100mW
XI3030P/F3C-P1545R5S115251Z15/2N	3.0x3.0x0.63	1.4~2.5	150	Far Red	715-745nm	70mW

Color | Shwo/Monochromatic LED



UNIT : mm



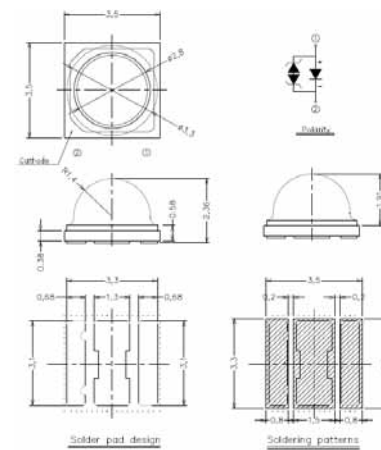
3535 / 1W / 350mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	Wavelength / CCT (nm) (K)	Luminous Flux / Radiometric Power (lm/mW)
ELSW-Q91F1-0LPNM-AF3F8	3.5x3.5x2.03	1.75-2.95	350	● Far Red	715-745nm	275mW
ELSW-R21E1-0EPNM-AD3D8	3.5x3.5x2.03	1.75-2.95	350	● Deep Red	645-675nm	380mW
ELSW-RA1E1-0LPNM-AD3D8	3.5x3.5x2.03	1.75-2.95	350	● Deep Red	645-675nm	420mW
ELSW-R51L1-0EPNM-CB4B6	3.5x3.5x2.03	2.65-3.85	350	● Royal Blue	445-460nm	530mW

• Above spec is based on 85°C



UNIT : mm



3535 / 1W / 350mA

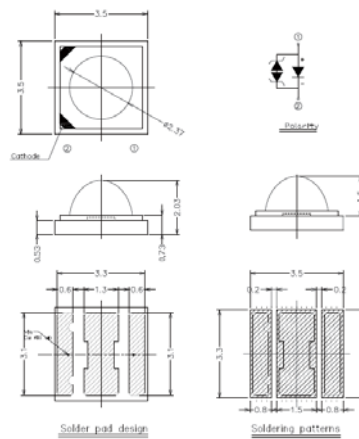
Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	Wavelength / CCT (nm) (K)	Luminous Flux / Radiometric Power (lm/mW)
ELSWF-R61L1-6FPNM-CB4B6	3.5x3.5x2.36	2.65-3.85	350	● Royal Blue	445-460nm	600mW

• Above spec is based on 85°C

Color ■ Shwo/Monochromatic LED



UNIT : mm

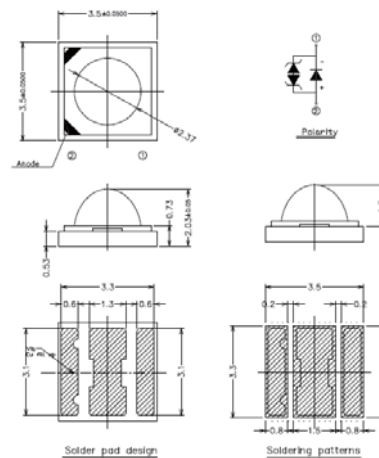


3535 / 1W / 350mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	Wavelength / CCT (nm) (K)	Luminous Flux / Radiometric Power (lm/mW)
ELSW-J31G1-0LPNM-CG1G2	3.5x3.5x2.03	2.65-3.85	350	● Green	520~530nm	120lm
ELSW-J31G1-0LPNM-CG2G3	3.5x3.5x2.03	2.65-3.85	350	● Green	525~535nm	120lm
ELSW-E91B1-0LPNM-CB7B8	3.5x3.5x2.03	2.65-3.85	350	● Blue	460~470nm	23lm
ELSW-F11B1-0LPNM-CB8B9	3.5x3.5x2.03	2.65-3.85	350	● Blue	465~475nm	27lm
ELSW-F21B1-0LPNM-CBABB	3.5x3.5x2.03	2.65-3.85	350	● Blue	475~485nm	33lm



UNIT : mm



3535 / 1W / 350mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	Wavelength / CCT (nm) (K)	Luminous Flux / Radiometric Power (lm/mW)
ELSW-F61R1-0PPNM-AR5R6	3.5x3.5x2.03	1.75-2.95	350	● Red	620~630nm	60lm
ELSW-F91O1-0EPNM-AR3R4	3.5x3.5x2.03	1.75-2.95	350	● Orange	610~620nm	90lm
ELSW-F61Y1-0EPNM-AA3A6	3.5x3.5x2.03	1.75-2.95	350	● Amber	585~595nm	60lm

Color | DOB



UNIT : mm



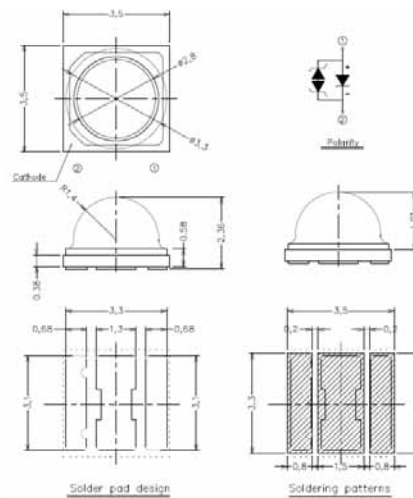
DOB

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	Wavelength / CCT (nm) (K)	Luminous Flux / Radiometric Power (lm/mW)
TSAN562P-M-A000-DC011-0001T	560x20	24~36	350/900	Blue+Deep Red	450+660nm	8800/25000mW

High power | Shwo (F)



UNIT : mm



1W / 3V / 350mA

Product	Size (LxWxHmm)	Forward Voltage(V)	Forward Current(mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (TYP)	CRI (min.)
ELSWF-JJ1C1-6FPGS-C6500	3.5x3.5x2.36	2.65~3.55	350	○ Cool White	6500K	158	169	70
ELSWF-JJ1C1-6FPGS-C5700	3.5x3.5x2.36	2.65~3.55	350	○ Cool White	5700K	158	169	70
ELSWF-JJ1C1-6FPGS-C5000	3.5x3.5x2.36	2.65~3.55	350	○ Cool White	5000K	158	169	70
ELSWF-J71N1-6FPGS-C4000	3.5x3.5x2.36	2.65~3.55	350	○ Neutral White	4000K	145	155	70
ELSWF-J61M1-6FPGS-C3500	3.5x3.5x2.36	2.65~3.55	350	● Warm White	3500K	135	146	70
ELSWF-J61M1-6FPGS-C3000	3.5x3.5x2.36	2.65~3.55	350	● Warm White	3000K	135	146	70
ELSWF-J61M1-6FPGS-C2700	3.5x3.5x2.36	2.65~3.55	350	● Warm White	2700K	135	146	70

• Above spec is based on 85°C

3W / 3V / 700mA

Product	Size (LxWxHmm)	Forward Voltage(V)	Forward Current(mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (TYP)	CRI (min.)
ELSWF-JJ1C1-6FPGS-C6500	3.5x3.5x2.36	2.65~3.85	700	○ Cool White	6500K	283	304	70
ELSWF-JJ1C1-6FPGS-C5700	3.5x3.5x2.36	2.65~3.85	700	○ Cool White	5700K	283	304	70
ELSWF-JJ1C1-6FPGS-C5000	3.5x3.5x2.36	2.65~3.85	700	○ Cool White	5000K	283	304	70
ELSWF-J71N1-6FPGS-C4000	3.5x3.5x2.36	2.65~3.85	700	○ Neutral White	4000K	260	278	70
ELSWF-J61M1-6FPGS-C3500	3.5x3.5x2.36	2.65~3.85	700	● Warm White	3500K	243	262	70
ELSWF-J61M1-6FPGS-C3000	3.5x3.5x2.36	2.65~3.85	700	● Warm White	3000K	243	262	70
ELSWF-J61M1-6FPGS-C2700	3.5x3.5x2.36	2.65~3.85	700	● Warm White	2700K	243	262	70

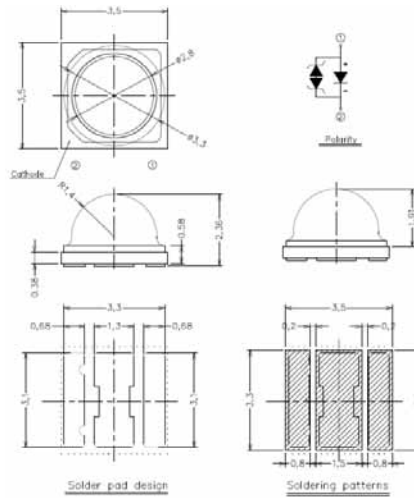
• Above spec is based on 85°C



High power | Shwo (F)



UNIT : mm

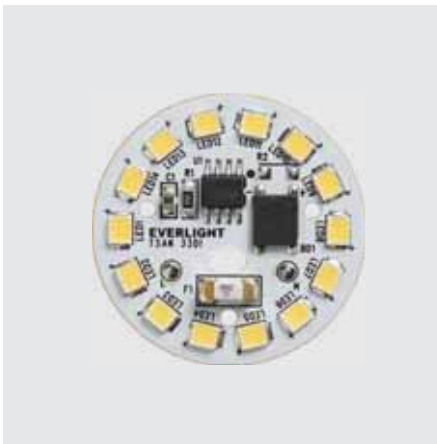


4W / 3V / 1000mA

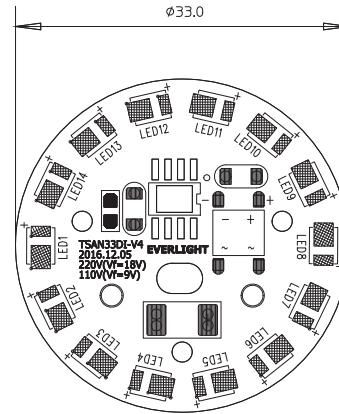
Product	Size (LxWxHmm)	Forward Voltage(V)	Forward Current(mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (TYP)	CRI (min.)
ELSWF-JJ1C1-6FPGS-C6500	3.5x3.5x2.36	2.95~4.15	1000	○ Cool White	6500K	378	406	70
ELSWF-JJ1C1-6FPGS-C5700	3.5x3.5x2.36	2.95~4.15	1000	○ Cool White	5700K	378	406	70
ELSWF-JJ1C1-6FPGS-C5000	3.5x3.5x2.36	2.95~4.15	1000	○ Cool White	5000K	378	406	70
ELSWF-J71N1-6FPGS-C4000	3.5x3.5x2.36	2.95~4.15	1000	○ Neutral White	4000K	345	371	70
ELSWF-J61M1-6FPGS-C3500	3.5x3.5x2.36	2.95~4.15	1000	● Warm White	3500K	323	348	70
ELSWF-J61M1-6FPGS-C3000	3.5x3.5x2.36	2.95~4.15	1000	● Warm White	3000K	323	348	70
ELSWF-J61M1-6FPGS-C2700	3.5x3.5x2.36	2.95~4.15	1000	● Warm White	2700K	323	348	70

• Above spec is based on 85°C

Driver on Board | TSAN33DI



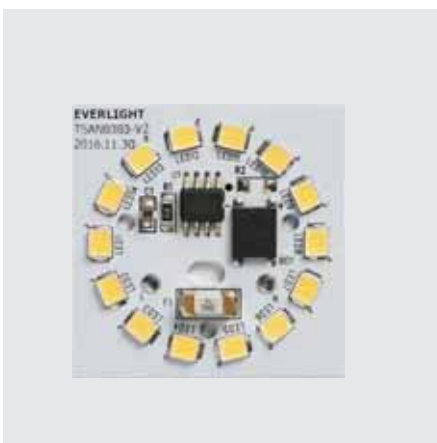
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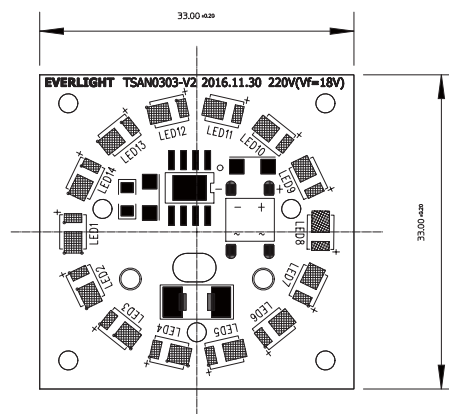
8W

Product	Diameter (mm)	CCT (K)	Flux (lm)	CRI (Ra)	SDCM	Dimming
TSAN33DI-M-K277-EU008-D001T	33x33	2700K	720	Typ. 80	7	Non-dimmable
TSAN33DI-M-K307-EU008-D001T		3000K				
TSAN33DI-M-K407-EU008-D001T		4000K				
TSAN33DI-M-K507-EU008-E001T		5000K	800			
TSAN33DI-M-K577-EU008-E001T		5700K				
TSAN33DI-M-K657-EU008-E001T		6500K				

Driver on Board | TSAN0303



UNIT : mm



10W

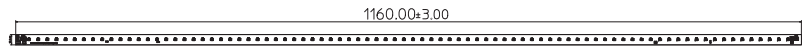
Product	Diameter (mm)	CCT (K)	Flux (lm)	CRI (Ra)	SDCM	Dimming
TSAN0303-M-K277-EU010-D001T	33x33	2700K	900	Typ. 80	7	Non-dimmable
TSAN0303-M-K307-EU010-D001T		3000K				
TSAN0303-M-K407-EU010-D001T		4000K				
TSAN0303-M-K507-EU010-E001T		5000K	1,000			
TSAN0303-M-K577-EU010-E001T		5700K				
TSAN0303-M-K657-EU010-E001T		6500K				

Driver on Board

Driver on Board | TSAN4FFA



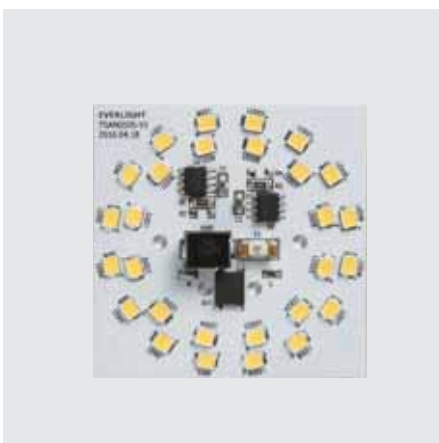
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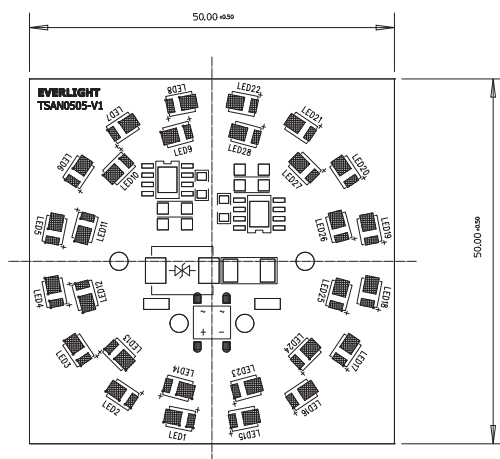
16W

Product	Diameter (mm)	CCT (K)	Flux (lm)	CRI (Ra)	SDCM	Dimming
TSAN4FFA-M-K277-EU016-E001C	1160x15	2700K	1,680	Typ. 80	7	Non-dimmable
TSAN4FFA-M-K307-EU016-E001C		3000K				
TSAN4FFA-M-K407-EU016-E001C		4000K				
TSAN4FFA-M-K507-EU016-F001C		5000K	1,840			
TSAN4FFA-M-K577-EU016-F001C		5700K				
TSAN4FFA-M-K657-EU016-F001C		6500K				

Driver on Board | TSAN0505



UNIT : mm



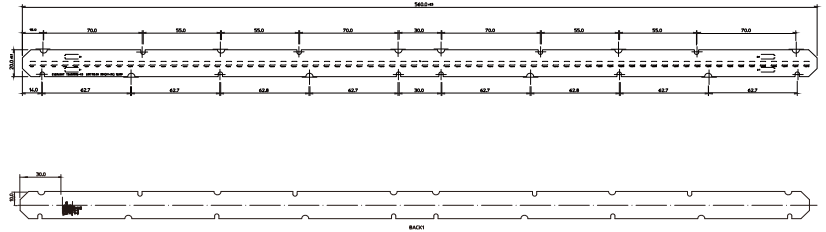
25W

Product	Diameter (mm)	CCT (K)	Flux (lm)	CRI (Ra)	SDCM	Dimming
TSAN0505-M-K277-EU016-D001T	50x50	2700K	2,250	Typ. 80	7	Non-dimmable
TSAN0505-M-K307-EU016-D001T		3000K				
TSAN0505-M-K407-EU016-D001T		4000K				
TSAN0505-M-K507-EU016-E001T		5000K	2,500			
TSAN0505-M-K577-EU016-E001T		5700K				
TSAN0505-M-K657-EU016-E001T		6500K				

Driver on Board | TSAN-5602



UNIT : mm



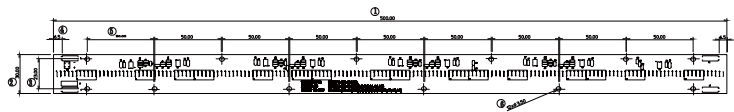
14W

Product	Diameter (mm)	CCT (K)	Flux (lm)	CRI (Ra)	SDCM	Dimming
TSAN-5602-M-K307-DC014-F001T	560x20	3000K	1540	Typ. 80	7	Non-dimmable
TSAN-5602-M-K407-DC014-F001T		4000K	1540			
TSAN-5602-M-K657-DC014-G001T		6500K	1680			

Driver on Board | TSAN5003



UNIT : mm



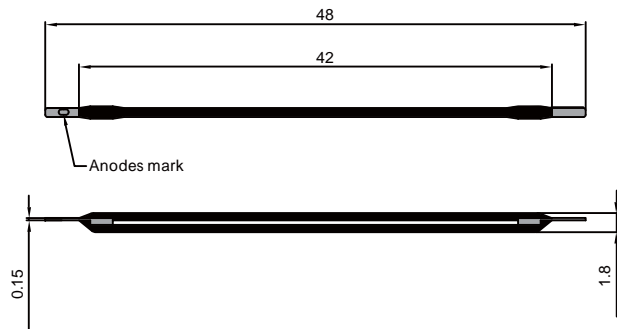
40W / 60W

Product	Diameter (mm)	CCT (K)	Flux (lm)	CRI (Ra)	SDCM	Dimming
TSAN5003-M-K307-US040-F001C	500x30	3000K	4400	Typ. 80	7	Non-dimmable
TSAN5003-M-K307-US060-F001C		3000K	6600			

Filament



UNIT : mm



1.0W / 68V

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (lm)		CRI (min.)	Luminous Efficacy (lm/W)
						Min.	TYP		
JHU3802-KM275J1-68101-800T	Total Length (including pins): 38 Diameter:1.8"	60~70	13	● Warm White	2700K	145	150	80	170
JHU3802-KM405J1-68101-800T	Total Length (including pins): 38 Diameter:1.8"	60~70	13	○ Neutral White	4000K	150	155	80	180

1.05W / 74V

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (lm)		CRI (min.)	Luminous Efficacy (lm/W)
						Min.	TYP		
JHU3802-KM275J5-75101-000T	Total Length (including pins): 38 Diameter:1.8"	70~80	13	● Warm White	2700K	155	160	80	160
JHU3802-KM405J5-75101-000T	Total Length (including pins): 38 Diameter:1.8"	70~80	13	○ Neutral White	4000K	160	170	80	170

1.25W / 82V

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (lm)		CRI (min.)	Luminous Efficacy (lm/W)
						Min.	TYP		
JHU4802-KM275J2-821W2-800T	Total Length (including pins):52 Diameter:1.8"	80~90	15	● Warm White	2700K	200	210	80	170
JHU4802-KM405J2-821W2-800T	Total Length (including pins):52 Diameter:1.8"	80~90	15	○ Neutral White	4000K	220	230	80	180

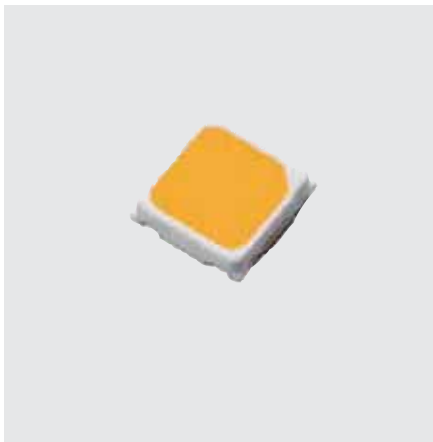
1.75W / 135V

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (lm)		CRI (min.)	Luminous Efficacy (lm/W)
						Min.	TYP		
JHU4802-KM275J3-D51W8-000T	Total Length (including pins):52 Diameter:1.8"	130~145	13	● Warm White	2700K	260	280	80	155
JHU4802-KM405J3-D51W8-000T	Total Length (including pins):52 Diameter:1.8"	130~145	13	○ Neutral White	4000K	280	290	80	160

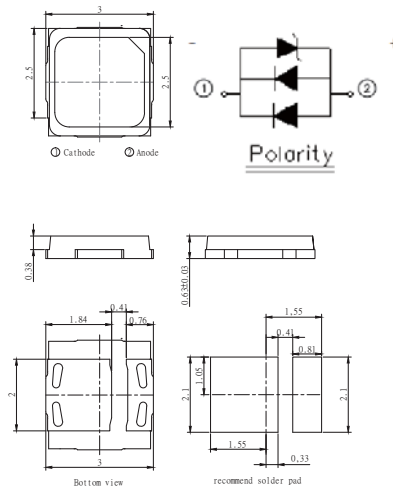
1.87W / 145V

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (lm)		CRI (min.)	Luminous Efficacy (lm/W)
						Min.	TYP		
JHU4802-KM275J4-E51W8-000T	Total Length (including pins):48 Diameter:1.8"	135~150	13	● Warm White	2700K	275	290	80	155
JHU4802-KM405J4-E51W8-000T	Total Length (including pins):48 Diameter:1.8"	135~150	13	○ Neutral White	4000K	290	300	80	160

Low Middle Power LED | XI3030



UNIT : mm



0.2W / 3V / 65mA

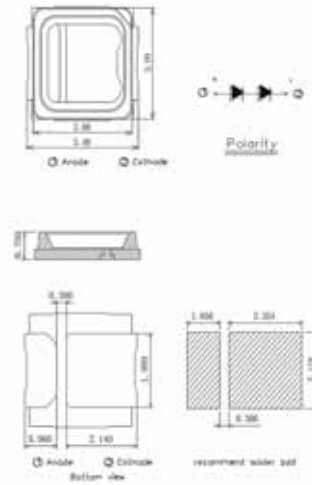
Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
GXI3030P/KK6C-M2727X2X826292U6/2T	3.0x3.0x0.63	2.6~2.9	65	○ Warm White	2700K	32	34	80	190
GXI3030P/KK6C-M3030X3X926292U6/2T	3.0x3.0x0.63	2.6~2.9	65	○ Warm White	3000K	33	35	80	196
GXI3030P/KK6C-M3535X3X926292U6/2T	3.0x3.0x0.63	2.6~2.9	65	○ Warm White	3500K	33	35	80	196
GXI3030P/KK6C-M5050X5Y126292U6/2T	3.0x3.0x0.63	2.6~2.9	65	○ Cool White	5000K	35	37	80	208
GXI3030P/KK6C-M6262X4Y026292U6/2T	3.0x3.0x0.63	2.6~2.9	65	○ Cool White	6200K	34	36	80	202
GXI3030P/KK6C-M6565X4Y026292U6/2T	3.0x3.0x0.63	2.6~2.9	65	○ Cool White	6500K	34	36	80	202

Low Middle Power LED

Low Middle Power LED | XI3030



UNIT : mm



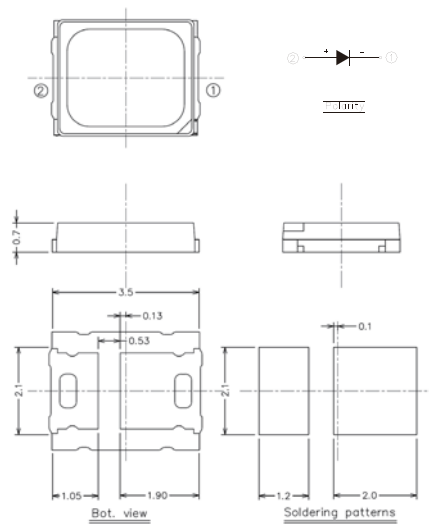
1W / 6V / 150mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
XI3030P/KK5C-H2712566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	● Warm White	2700K	125	131	80	140
XI3030P/KK5C-H3013066Z15/2N	3.0x3.0x0.63	5.6-6.6	150	● Warm White	3000K	130	136	80	145
XI3030P/KK5C-H4013566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Neutral White	4000K	135	141	80	150
XI3030P/KK5C-H5013566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	5000K	135	141	80	150
XI3030P/KK5C-H5713566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	5700K	135	141	80	150
XI3030P/KK5C-H6513566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	6500K	135	141	80	150
XI3030P/KK6C-H2713066Z15/2N	3.0x3.0x0.63	5.6-6.6	150	● Warm White	2700K	130	136	80	145
XI3030P/KK6C-H3013566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	● Warm White	3000K	135	141	80	150
XI3030P/KK6C-H4014066Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Neutral White	4000K	140	147	80	155
XI3030P/KK6C-H5014066Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	5000K	140	147	80	155
XI3030P/KK6C-H5714066Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	5700K	140	147	80	155
XI3030P/KK6C-H6514066Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	6500K	140	147	80	155
XI3030P/KK7C-H2713566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	● Warm White	2700K	135	141	80	100
XI3030P/KK7C-H3014066Z15/2N	3.0x3.0x0.63	5.6-6.6	150	● Warm White	3000K	140	147	80	155
XI3030P/KK7C-H4014566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Neutral White	4000K	145	152	80	160
XI3030P/KK7C-H5014566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	5000K	145	152	80	160
XI3030P/KK7C-H5714566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	5700K	145	152	80	160
XI3030P/KK7C-H6514566Z15/2N	3.0x3.0x0.63	5.6-6.6	150	○ Cool White	6500K	145	152	80	160

Low Middle Power LED | 2835 3V



UNIT : mm



0.2W / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-21S/KK5C-H272333Z6/2T	2.8x3.5x0.7	2.8~3.3	60	● Warm White	2700K	23	25	80	139
67-21S/KK5C-H302433Z6/2T	2.8x3.5x0.7	2.8~3.3	60	● Warm White	3000K	24	26	80	144
67-21S/KK5C-H402633Z6/2T	2.8x3.5x0.7	2.8~3.3	60	○ Neutral White	4000K	26	28	80	156
67-21S/KK5C-H502633Z6/2T	2.8x3.5x0.7	2.8~3.3	60	○ Cool White	5000K	26	28	80	156
67-21S/KK5C-H572633Z6/2T	2.8x3.5x0.7	2.8~3.3	60	○ Cool White	5700K	26	28	80	156
67-21S/KK5C-H602633Z6/2T	2.8x3.5x0.7	2.8~3.3	60	○ Cool White	6000K	26	28	80	156
67-21S/KK5C-H652633Z6/2T	2.8x3.5x0.7	2.8~3.3	60	○ Cool White	6500K	26	28	80	156

0.2W / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-21S/KKE-N272533Z6/SZM/2T	2.8x3.5x0.7	2.8~3.3	60	● Warm White	2700K	25	27	80	150
67-21S/KKE-N302633Z6/SZM/2T	2.8x3.5x0.7	2.8~3.3	60	● Warm White	3000K	26	28	80	156
67-21S/KKE-N402833Z6/SZM/2T	2.8x3.5x0.7	2.8~3.3	60	○ Neutral White	4000K	28	30	80	167
67-21S/KKE-N502833Z6/SZM/2T	2.8x3.5x0.7	2.8~3.3	60	○ Cool White	5000K	28	30	80	167
67-21S/KKE-N652833Z6/SZM/2T	2.8x3.5x0.7	2.8~3.3	60	○ Cool White	6500K	28	30	80	167

0.2W / 3V / 60mA

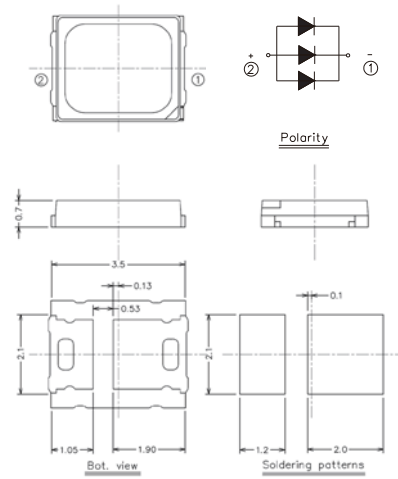
Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-21S/KK6C-H2727N4PA2834Z6/2T(GC)	2.8x3.5x0.7	2.8~3.4	60	● Warm White	2700K	27	29	80	161
67-21S/KK6C-H3030N42PA2834Z6/2T(GC)	2.8x3.5x0.7	2.8~3.4	60	● Warm White	3000K	29	31	80	172
67-21S/KK6C-H3535N4BPA2834Z6/2T(GC)	2.8x3.5x0.7	2.8~3.4	60	● Warm White	3500K	30	32	80	178
67-21S/KK6C-H4040N4BPA2834Z6/2T(GC)	2.8x3.5x0.7	2.8~3.4	60	○ Neutral White	4000K	30	32	80	178
67-21S/KK6C-H5050N43PA2834Z6/2T(GC)	2.8x3.5x0.7	2.8~3.4	60	○ Cool White	5000K	31	33	80	183
67-21S/KK6C-H6565N4BPA2834Z6/2T(GC)	2.8x3.5x0.7	2.8~3.4	60	○ Cool White	6500K	30	32	80	178



Low Middle Power LED | 2835 3V



UNIT : mm



0.2W HE / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23S/KK7C-H272830Z6/2T	2.8x3.5x0.7	2.6~3.0	60	● Warm White	2700K	28	30	80	184
67-23S/KK7C-H303030Z6/2T	2.8x3.5x0.7	2.6~3.0	60	● Warm White	3000K	30	32	80	196
67-23S/KK7C-H353030Z6/2T	2.8x3.5x0.7	2.6~3.0	60	● Warm White	3500K	30	32	80	196
67-23S/KK7C-H403230Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Neutral White	4000K	32	34	80	208
67-23S/KK7C-H503230Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	5000K	32	34	80	208
67-23S/KK7C-H573230Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	5700K	32	34	80	208
67-23S/KK7C-H653230Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	6500K	32	34	80	208

0.2W HE / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23S/KK8C-H303030Z6/2T	2.8x3.5x0.7	2.6~3.0	60	● Warm White	3000K	30	32	80	196
67-23S/KK8C-H353030Z6/2T	2.8x3.5x0.7	2.6~3.0	60	● Warm White	3500K	30	32	80	196
67-23S/KK8C-H403330Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Neutral White	4000K	33	35	80	214
67-23S/KK8C-H423330Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Neutral White	4200K	33	35	80	214
67-23S/KK8C-H503330Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	5000K	33	35	80	214
67-23S/KK8C-H653330Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	6500K	33	35	80	214

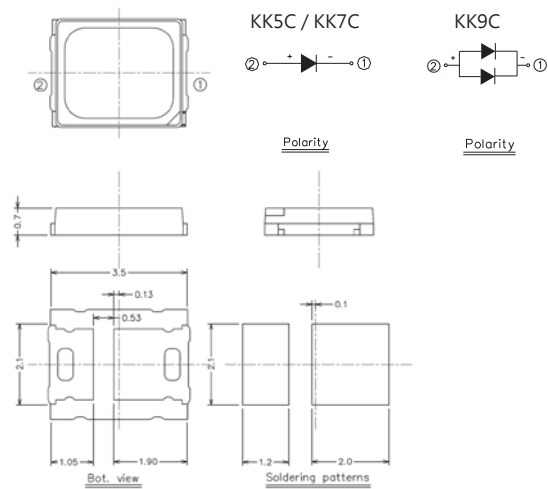
0.2W HE / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23S/KK9C-H403430Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Neutral White	4000K	34	36	80	221
67-23S/KK9C-H503430Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	5000K	34	36	80	221
67-23S/KK9C-H573430Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	5700K	34	36	80	221
67-23S/KK9C-H653430Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	6500K	34	36	80	221

Low Middle Power LED | 2835 3V



UNIT : mm



Low Middle Power LED

0.5W / 3V / 150mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-21S/KK5C-H275534Z15/2T	2.8x3.5x0.7	2.8~3.4	150	● Warm White	2700K	55	59	80	127
67-21S/KK5C-H306034Z15/2T	2.8x3.5x0.7	2.8~3.4	150	● Warm White	3000K	60	64	80	138
67-21S/KK5C-H406534Z15/2T	2.8x3.5x0.7	2.8~3.4	150	○ Neutral White	4000K	60	64	80	138
67-21S/KK5C-H506534Z15/2T	2.8x3.5x0.7	2.8~3.4	150	○ Cool White	5000K	65	69	80	148
67-21S/KK5C-H576534Z15/2T	2.8x3.5x0.7	2.8~3.4	150	○ Cool White	5700K	65	69	80	148
67-21S/KK5C-H656534Z15/2T	2.8x3.5x0.7	2.8~3.4	150	○ Cool White	6500K	65	69	80	148

0.5W / 3V / 150mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-21S/KK7C-H276034Z15/DT(GC)	2.8x3.5x0.7	2.8~3.4	150	● Warm White	2700K	60	64	80	138
67-21S/KK7C-H306534Z15/DT(GC)	2.8x3.5x0.7	2.8~3.4	150	● Warm White	3000K	65	69	80	148
67-21S/KK7C-H356534Z15/DT(GC)	2.8x3.5x0.7	2.8~3.4	150	● Warm White	3500K	65	69	80	148
67-21S/KK7C-H407034Z15/DT(GC)	2.8x3.5x0.7	2.8~3.4	150	○ Neutral White	4000K	70	74	80	159
67-21S/KK7C-H507034Z15/DT(GC)	2.8x3.5x0.7	2.8~3.4	150	○ Cool White	5000K	70	74	80	159
67-21S/KK7C-H577034Z15/DT(GC)	2.8x3.5x0.7	2.8~3.4	150	○ Cool White	5700K	70	74	80	159
67-21S/KK7C-H607034Z15/DT(GC)	2.8x3.5x0.7	2.8~3.4	150	○ Cool White	6000K	70	74	80	159
67-21S/KK7C-H657034Z15/DT(GC)	2.8x3.5x0.7	2.8~3.4	150	○ Cool White	6500K	70	74	80	159

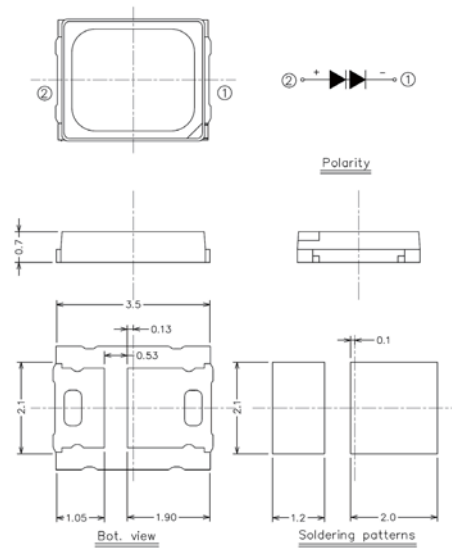
0.5W / 3V / 150mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-22S/KK9C-H407532Z15/2T(GC)	2.8x3.5x0.7	2.8~3.2	150	○ Neutral White	4000K	75	79	80	192
67-22S/KK9C-H507532Z15/2T(GC)	2.8x3.5x0.7	2.8~3.2	150	○ Cool White	5000K	75	79	80	192
67-22S/KK9C-H577532Z15/2T(GC)	2.8x3.5x0.7	2.8~3.2	150	○ Cool White	5700K	75	79	80	192
67-22S/KK9C-H657532Z15/2T(GC)	2.8x3.5x0.7	2.8~3.2	150	○ Cool White	6500K	75	79	80	192

Low Middle Power LED | 2835 6V



UNIT : mm



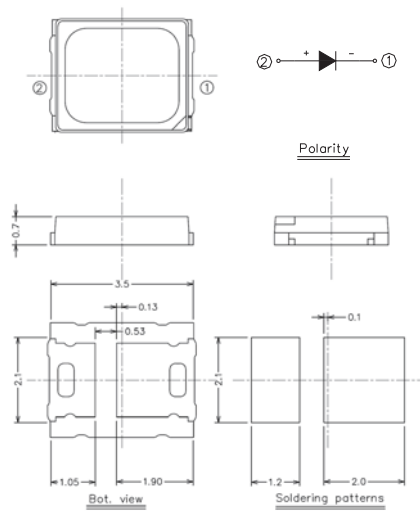
1W / 6V / 150mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-22ST/KKE-N2710368Z15/SZM/2T	2.8x3.5x0.7	6.0~6.8	150	● Warm White	2700K	103	109	80	114
67-22ST/KKE-N3010768Z15/SZM/2T	2.8x3.5x0.7	6.0~6.8	150	● Warm White	3000K	107	113	80	118
67-22ST/KKE-N4011568Z15/SZM/2T	2.8x3.5x0.7	6.0~6.8	150	○ Neutral White	4000K	115	121	80	126
67-22ST/KKE-N5011568Z15/SZM/2T	2.8x3.5x0.7	6.0~6.8	150	○ Cool White	5000K	115	121	80	126
67-22ST/KKE-N6511568Z15/SZM/2T	2.8x3.5x0.7	6.0~6.8	150	○ Cool White	6500K	115	121	80	126

Low Middle Power LED | 2835 9V



UNIT : mm



0.5W / 9V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-21S/KK4C-H276096Z6/2T	2.8x3.5x0.7	8.7~9.6	60	● Warm White	2700K	60	64	80	115
67-21S/KK4C-H306596Z6/2T	2.8x3.5x0.7	8.7~9.6	60	● Warm White	3000K	65	69	80	124
67-21S/KK4C-H406896Z6/2T	2.8x3.5x0.7	8.7~9.6	60	○ Neutral White	4000K	68	72	80	129
67-21S/KK4C-H507096Z6/2T	2.8x3.5x0.7	8.7~9.6	60	○ Cool White	5000K	70	74	80	133
67-21S/KK4C-H657096Z6/2T	2.8x3.5x0.7	8.7~9.6	60	○ Cool White	6500K	70	74	80	133

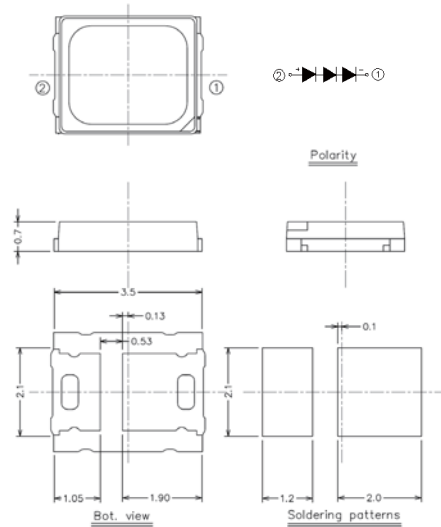
0.5W / 9V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-21ST/KK6C-H277096Z6/2T	2.8x3.5x0.7	8.7~9.6	60	● Warm White	2700K	70	74	80	133
67-21ST/KK6C-H307396Z6/2T	2.8x3.5x0.7	8.7~9.6	60	● Warm White	3000K	73	77	80	138
67-21ST/KK6C-H407696Z6/2T	2.8x3.5x0.7	8.7~9.6	60	○ Neutral White	4000K	76	80	80	143
67-21ST/KK6C-H507696Z6/2T	2.8x3.5x0.7	8.7~9.6	60	○ Cool White	5000K	76	80	80	143

Low Middle Power LED | 2835 9V



UNIT : mm



1W / 9V / 100mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23ST/KKE-N2711096Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	2700K	110	116	80	125
67-23ST/KKE-N3011796Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	3000K	117	123	80	132
67-23ST/KKE-N4012396Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Neutral White	4000K	123	129	80	139
67-23ST/KKE-N5012396Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	5000K	123	129	80	139
67-23ST/KKE-N6512396Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	6500K	123	129	80	139

1W / 9V / 100mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23ST/KKE-N2711596Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	2700K	115	121	80	130
67-23ST/KKE-N3012296Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	3000K	122	128	80	138
67-23ST/KKE-N4012896Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Neutral White	4000K	128	134	80	144
67-23ST/KKE-N5012896Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	5000K	128	134	80	144
67-23ST/KKE-N6512896Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	6500K	128	134	80	144

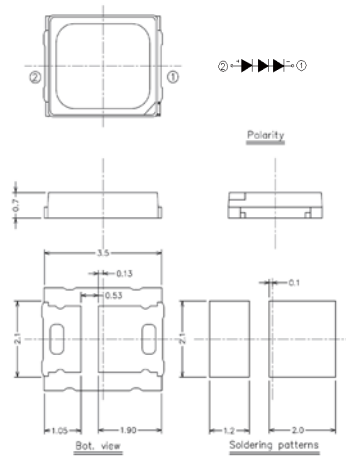
1W / 9V / 100mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23ST/KKE-N2712096Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	2700K	120	126	80	135
67-23ST/KKE-N3012796Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	3000K	127	133	80	143
67-23ST/KKE-N4013396Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Neutral White	4000K	133	139	80	149
67-23ST/KKE-N5013396Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	5000K	133	139	80	149
67-23ST/KKE-N6513396Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	6500K	133	139	80	149

Low Middle Power LED | 2835 9V



UNIT : mm



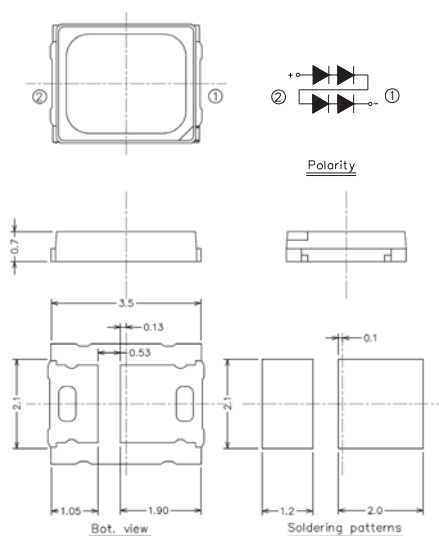
1W / 9V / 100mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23ST/KKE-N2712596Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	2700K	125	131	80	141
67-23ST/KKE-N3013296Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	3000K	132	138	80	148
67-23ST/KKE-N4013896Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Neutral White	4000K	138	144	80	155
67-23ST/KKE-N5013896Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	5000K	138	144	80	155
67-23ST/KKE-N6513896Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	6500K	138	144	80	155

Low Middle Power LED | 2835 12V



UNIT : mm



Low Middle Power LED

1W / 12V / 80mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-24ST/KKE-H27115130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	2700K	115	121	80	126
67-24ST/KKE-H30120130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	3000K	120	126	80	131
67-24ST/KKE-H35120130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	3500K	120	126	80	131
67-24ST/KKE-H40120130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	○ Neutral White	4000K	120	126	80	131
67-24ST/KKE-H50125130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	○ Cool White	5000K	125	131	80	136
67-24ST/KKE-H57125130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	○ Cool White	5700K	125	131	80	136
67-24ST/KKE-H65125130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	○ Cool White	6500K	125	131	80	136

1W / 12V / 80mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-24ST/KKE-H27120130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	2700K	120	126	80	131
67-24ST/KKE-H30125130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	3000K	125	131	80	136
67-24ST/KKE-H35125130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	3500K	125	131	80	136
67-24ST/KKE-H40125130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	○ Neutral White	4000K	125	131	80	136
67-24ST/KKE-H50130130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	○ Cool White	5000K	130	136	80	142
67-24ST/KKE-H57130130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	○ Cool White	5700K	130	136	80	142
67-24ST/KKE-H65130130Z8/2T	2.8x3.5x0.7	11.0~13.0	80	○ Cool White	6500K	130	136	80	142

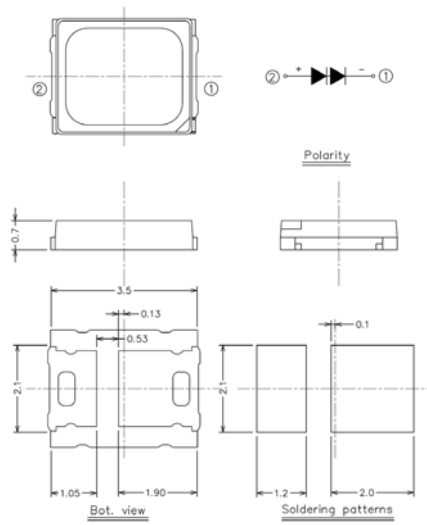
1W / 12V / 80mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-24ST/KKE-N27125130Z8/SZM/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	2700K	125	131	80	136
67-24ST/KKE-N30130130Z8/SZM/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	3000K	130	136	80	142
67-24ST/KKE-N35130130Z8/SZM/2T	2.8x3.5x0.7	11.0~13.0	80	● Warm White	3500K	130	136	80	142
67-24ST/KKE-N40135130Z8/SZM/2T	2.8x3.5x0.7	11.0~13.0	80	○ Neutral White	4000K	135	141	80	147
67-24ST/KKE-N50135130Z8/SZM/2T	2.8x3.5x0.7	11.0~13.0	80	○ Cool White	5000K	135	141	80	147
67-24ST/KKE-N65135130Z8/SZM/2T	2.8x3.5x0.7	11.0~13.0	80	○ Cool White	6500K	135	141	80	147

Low Middle Power LED | 2835 18V



UNIT : mm



0.5W / 18V / 30mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-22ST/KKE-N2765200Z3/SZM/2T	2.8x3.5x0.7	17.0~19.0	30	● Warm White	2700K	65	71	80	77
67-22ST/KKE-N3065200Z3/SZM/2T	2.8x3.5x0.7	17.0~19.0	30	● Warm White	3000K	65	71	80	77
67-22ST/KKE-N4070200Z3/SZM/2T	2.8x3.5x0.7	17.0~19.0	30	○ Neutral White	4000K	70	76	80	82
67-22ST/KKE-N5070200Z3/SZM/2T	2.8x3.5x0.7	17.0~19.0	30	○ Cool White	5000K	70	76	80	82
67-22ST/KKE-N6570200Z3/SZM/2T	2.8x3.5x0.7	17.0~19.0	30	○ Cool White	6500K	70	76	80	82

1W / 18V / 50mA

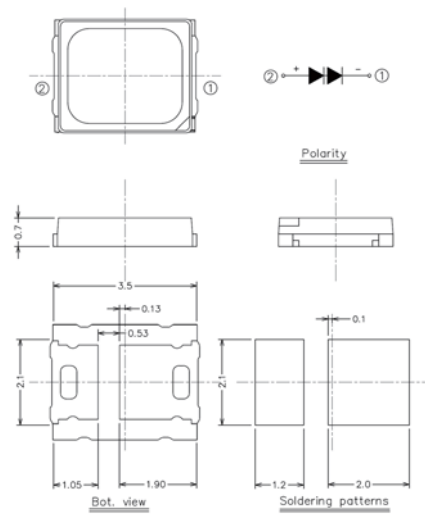
Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-22ST/KKE-N27125190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	● Warm White	2700K	125	131	80	142
67-22ST/KKE-N30130190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	● Warm White	3000K	130	136	80	147
67-22ST/KKE-N35130190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	● Warm White	3500K	130	136	80	147
67-22ST/KKE-N40135190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	○ Neutral White	4000K	135	141	80	152
67-22ST/KKE-N50135190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	○ Cool White	5000K	135	141	80	152
67-22ST/KKE-N65135190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	○ Cool White	6500K	135	141	80	152



Low Middle Power LED | 2835 36V



UNIT : mm



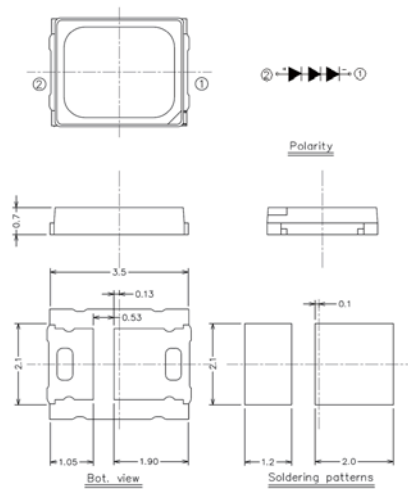
1W / 36V / 25mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-22ST/KKE-N27120380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	● Warm White	2700K	120	126	80	138
67-22ST/KKE-N30125380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	● Warm White	3000K	125	131	80	144
67-22ST/KKE-N40130380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	○ Neutral White	4000K	130	136	80	149
67-22ST/KKE-N50130380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	○ Cool White	5000K	130	136	80	149
67-22ST/KKE-N65130380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	○ Cool White	6500K	130	136	80	149

Low Middle Power LED | 2835 54V



UNIT : mm



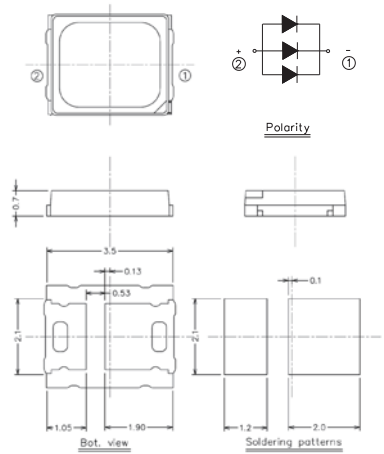
1W / 54V / 20mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23ST/KKE-N27120550Z2/SZM/2T	2.8x3.5x0.7	50.0~55.0	20	● Warm White	2700K	120	126	80	117
67-23ST/KKE-N30125550Z2/SZM/2T	2.8x3.5x0.7	50.0~55.0	20	● Warm White	3000K	125	131	80	121
67-23ST/KKE-N40130550Z2/SZM/2T	2.8x3.5x0.7	50.0~55.0	20	○ Neutral White	4000K	130	136	80	126
67-23ST/KKE-N50130550Z2/SZM/2T	2.8x3.5x0.7	50.0~55.0	20	○ Cool White	5000K	130	136	80	126
67-23ST/KKE-N65130550Z2/SZM/2T	2.8x3.5x0.7	50.0~55.0	20	○ Cool White	6500K	130	136	80	126

Low Middle Power LED | 2835 High CRI



UNIT : mm



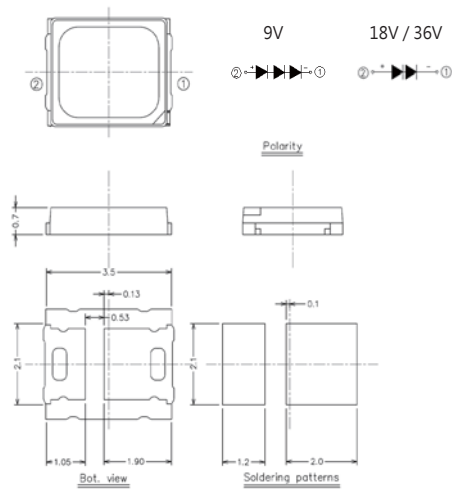
0.2W / CRI 90 R9>50 / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23S/RK8C-H272430Z6/2T	2.8x3.5x0.7	2.6~3.0	60	● Warm White	2700K	24	26	90	155
67-23S/RK8C-H302530Z6/2T	2.8x3.5x0.7	2.6~3.0	60	● Warm White	3000K	25	27	90	161
67-23S/RK8C-H352530Z6/2T	2.8x3.5x0.7	2.6~3.0	60	● Warm White	3500K	25	27	90	161
67-23S/RK8C-H402730Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Neutral White	4000K	27	29	90	173
67-23S/RK8C-H502730Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	5000K	27	29	90	173
67-23S/RK8C-H572730Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	5700K	27	29	90	173
67-23S/RK8C-H652730Z6/2T	2.8x3.5x0.7	2.6~3.0	60	○ Cool White	6500K	27	29	90	173

Low Middle Power LED | 2835 High CRI



UNIT : mm



1W / CRI 90 R9>50 / 9V / 100mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-23ST/RKE-N279596Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	2700K	95	101	90	109
67-23ST/RKE-N3010096Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	● Warm White	3000K	100	106	90	114
67-23ST/RKE-N4010596Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Neutral White	4000K	105	111	90	119
67-23ST/RKE-N5010596Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	5000K	105	111	90	119
67-23ST/RKE-N6510596Z10/SZM/2T	2.8x3.5x0.7	8.7~9.6	100	○ Cool White	6500K	105	111	90	119

1W / CRI 90 R9>50 / 18V / 50mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-22ST/RKE-N27108190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	● Warm White	2700K	108	114	90	123
67-22ST/RKE-N30110190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	● Warm White	3000K	110	116	90	125
67-22ST/RKE-N40115190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	○ Neutral White	4000K	115	121	90	131
67-22ST/RKE-N50115190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	○ Cool White	5000K	115	121	90	131
67-22ST/RKE-N65115190Z5/SZM/2T	2.8x3.5x0.7	17.0~19.0	50	○ Cool White	6500K	115	121	90	131

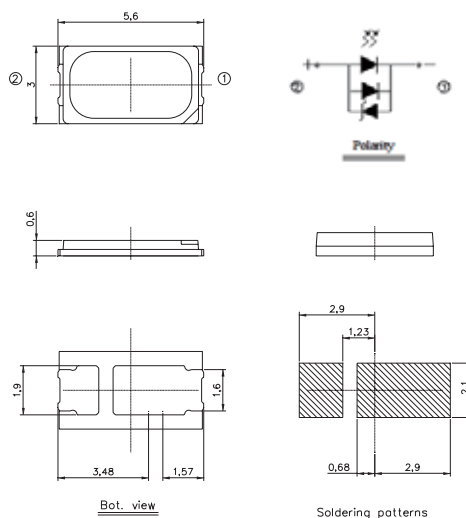
1W / CRI 90 R9>50 / 36V / 25mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
67-22ST/RKE-N2798380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	● Warm White	2700K	98	104	90	114
67-22ST/RKE-N30103380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	● Warm White	3000K	103	109	90	119
67-22ST/RKE-N40108380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	○ Neutral White	4000K	108	114	90	125
67-22ST/RKE-N50108380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	○ Cool White	5000K	108	114	90	125
67-22ST/RKE-N65108380U2/SZM/2T	2.8x3.5x0.7	34.0~38.0	25	○ Cool White	6500K	108	114	90	125

Low Middle Power LED | 5630 3V



UNIT : mm



0.2W / 3V / 65mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
G62-127ET/KK8D-M2727X3X92530U6/2T	5.6x3.0x0.6	2.5 - 3.0	65	● Warm White	2700K	33	35	80	196
G62-127ET/KK8D-M3030X4Y02530U6/2T	5.6x3.0x0.6	2.5 - 3.0	65	● Warm White	3000K	34	36	80	202
G62-127ET/KK8D-M3535X4Y02530U6/2T	5.6x3.0x0.6	2.5 - 3.0	65	● Warm White	3500K	34	36	80	202
G62-127ET/KK8D-M4040X6Y22530U6/2T	5.6x3.0x0.6	2.5 - 3.0	65	○ Neutral White	4000K	36	39	80	218
G62-127ET/KK8D-M5050X6Y22530U6/2T	5.6x3.0x0.6	2.5 - 3.0	65	○ Cool White	5000K	36	39	80	218
G62-127ET/KK8D-M5757X6Y22530U6/2T	5.6x3.0x0.6	2.5 - 3.0	65	○ Cool White	5700K	36	39	80	218
G62-127ET/KK8D-M6565X6Y22530U6/2T	5.6x3.0x0.6	2.5 - 3.0	65	○ Cool White	6500K	36	39	80	218

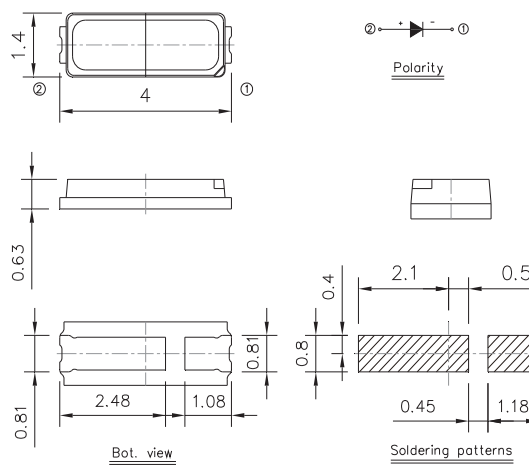
0.2W / 3V / 65mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
62-127ET/KKX-M2727X5Y12529U6/2T	5.6x3.0x0.65	2.5~2.9	65	● Warm White	2700K	35	37	80	208
62-127ET/KKX-M3030X6Y22529U6/2T	5.6x3.0x0.65	2.5~2.9	65	● Warm White	3000K	36	38	80	213
62-127ET/KKX-M3535X6Y22529U6/2T	5.6x3.0x0.65	2.5~2.9	65	● Warm White	3500K	36	38	80	213
62-127ET/KKX-M4040X8Y42530U6/2T	5.6x3.0x0.65	2.5~2.9	65	○ Neutral White	4000K	38	40	80	225
62-127ET/KKX-M5050X8Y42529U6/2T	5.6x3.0x0.65	2.5~2.9	65	○ Cool White	5000K	38	40	80	225
62-127ET/KKX-M5757X8Y42529U6/2T	5.6x3.0x0.65	2.5~2.9	65	○ Cool White	5700K	38	40	80	225
62-127ET/KKX-M6565X8Y42529U6/2T	5.6x3.0x0.65	2.5~2.9	65	○ Cool White	6500K	38	40	80	225

Low Middle Power LED | 4014 3V



UNIT : mm



0.2W / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
50-217S/KKE-B302432Z6/2T	4.0x1.4x0.63	2.8~3.2	60	● Warm White	3000K	24	26	80	140
50-217S/KKE-B352432Z6/2T	4.0x1.4x0.63	2.8~3.2	60	● Warm White	3500K	24	26	80	140
50-217S/KKE-B402632Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Neutral White	4000K	26	28	80	151
50-217S/KKE-B432632Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Neutral White	4300K	26	28	80	151
50-217S/KKE-B502632Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	5000K	26	28	80	151
50-217S/KKE-B632632Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	6300K	26	28	80	151
50-217S/KKE-B652632Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	6500K	26	28	80	151

0.2W / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
50-217S/KKE-B302632Z6/2T	4.0x1.4x0.63	2.8~3.2	60	● Warm White	3000K	26	28	80	151
50-217S/KKE-B352632Z6/2T	4.0x1.4x0.63	2.8~3.2	60	● Warm White	3500K	26	28	80	151
50-217S/KKE-B402832Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Neutral White	4000K	28	30	80	161
50-217S/KKE-B432832Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Neutral White	4300K	28	30	80	161
50-217S/KKE-B502832Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	5000K	28	30	80	161
50-217S/KKE-B632832Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	6300K	28	30	80	161
50-217S/KKE-B652832Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	6500K	28	30	80	161

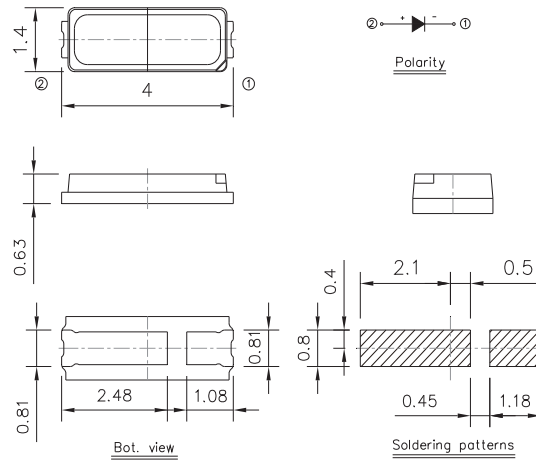
0.2W / 3V / 60mA

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
50-217S/KKE-B302832Z6/2T	4.0x1.4x0.63	2.8~3.2	60	● Warm White	3000K	28	30	80	161
50-217S/KKE-B352832Z6/2T	4.0x1.4x0.63	2.8~3.2	60	● Warm White	3500K	28	30	80	161
50-217S/KKE-B403032Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Neutral White	4000K	30	32	80	172
50-217S/KKE-B433032Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Neutral White	4300K	30	32	80	172
50-217S/KKE-B503032Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	5000K	30	32	80	172
50-217S/KKE-B633032Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	6300K	30	32	80	172
50-217S/KKE-B653032Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	6500K	30	32	80	172

Low Middle Power LED | 4014 3V



UNIT : mm



0.2W / 3V / 60mA

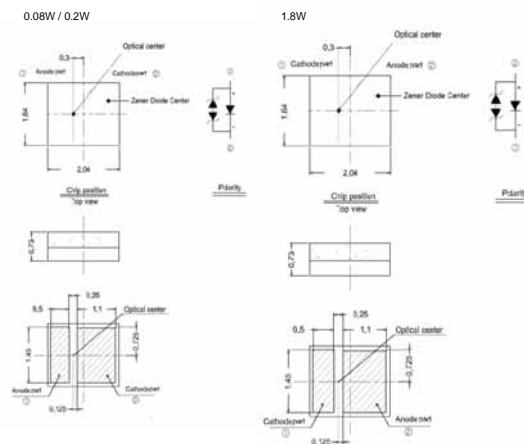
Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Color	CCT (K)	Luminous Flux (Min.)	Luminous Flux (Typ.)	CRI (min.)	Luminous Efficacy (lm/W)
50-217S/KKE-B303032Z6/2T	4.0x1.4x0.63	2.8~3.2	60	● Warm White	3000K	30	32	80	172
50-217S/KKE-B353032Z6/2T	4.0x1.4x0.63	2.8~3.2	60	● Warm White	3500K	30	32	80	172
50-217S/KKE-B403232Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Neutral White	4000K	32	34	80	183
50-217S/KKE-B433232Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Neutral White	4300K	32	34	80	183
50-217S/KKE-B503232Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	5000K	32	34	80	183
50-217S/KKE-B633232Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	6300K	32	34	80	183
50-217S/KKE-B653232Z6/2T	4.0x1.4x0.63	2.8~3.2	60	○ Cool White	6500K	32	34	80	183

Low Middle Power LED

UVA | LOW / MIDDLE / HIGH POWER LED | 2016



UNIT : mm



2016 ceramic substrate / 0.08W / 3.5V / 20mA / 120°

Product	Size (LxWxHmm)	View Angle	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA2016OGB-P6070Q43040020-VA1M	2.0x1.6x0.75	120°	3.0~4.0	20	360~370	20
ELUA2016OGB-P8090Q53040020-VA1M	2.0x1.6x0.75	120°	3.0~4.0	20	380~390	25
ELUA2016OGB-P9000Q53040020-VA1M	2.0x1.6x0.75	120°	3.0~4.0	20	390~400	25
ELUA2016OGB-P0010Q53040020-VA1M	2.0x1.6x0.75	120°	3.0~4.0	20	400~410	25

2016 ceramic substrate / 0.2W / 3.5V / 60mA / 120°

Product	Size (LxWxHmm)	View Angle	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA2016OGB-P6070R13040060-V21M	2.0x1.6x0.75	120°	3.0~4.0	60	360~370	50
ELUA2016OGB-P8090R43040060-V21M	2.0x1.6x0.75	120°	3.0~4.0	60	380~390	65
ELUA2016OGB-P9000R53040060-V21M	2.0x1.6x0.75	120°	3.0~4.0	60	390~400	70
ELUA2016OGB-P0010R53040060-V21M	2.0x1.6x0.75	120°	3.0~4.0	60	400~410	70

2016 ceramic substrate / 1.8W / 3.5V / 500mA / 120°

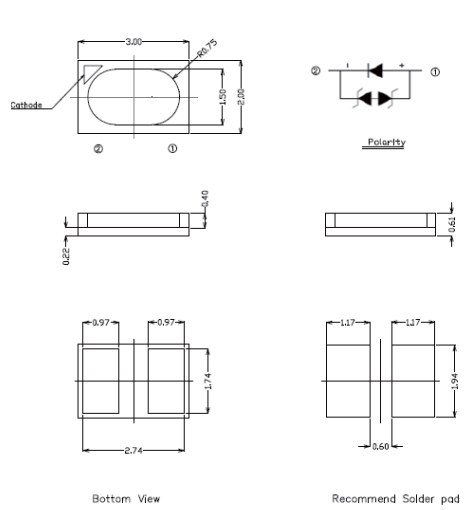
Product	Size (LxWxHmm)	View Angle	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA2016OGB-P6070T53240500-VD1M	2.0x1.6x0.75	120°	3.2~4.0	500	360~370	500
ELUA2016OGB-P8090T73240500-VD1M	2.0x1.6x0.75	120°	3.2~4.0	500	380~390	600
ELUA2016OGB-P9000T73240500-VD1M	2.0x1.6x0.75	120°	3.2~4.0	500	390~400	600
ELUA2016OGB-P0010T73240500-VD1M	2.0x1.6x0.75	120°	3.2~4.0	500	400~410	600



UVA | LOW MIDDLE POWER LED | 3020



UNIT : mm



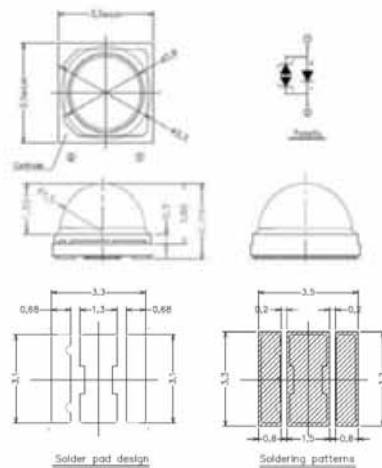
3020 ceramic substrate / 0.08W / 3.5V / 20mA / 120°

Product	Size (LxWxHmm)	View Angle	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA3020LUB-P6070Q43040020-VA1D	3.0x2.0x0.62	120°	3.0~4.0	20	360~370	20
ELUA3020LUB-P8090Q53040020-VA1D	3.0x2.0x0.62	120°	3.0~4.0	20	380~390	25
ELUA3020LUB-P9000Q53040020-VA1D	3.0x2.0x0.62	120°	3.0~4.0	20	390~400	25
ELUA3020LUB-P0010Q53040020-VA1D	3.0x2.0x0.62	120°	3.0~4.0	20	400~410	25

UVA | HIGH POWER LED | 3535



UNIT : mm



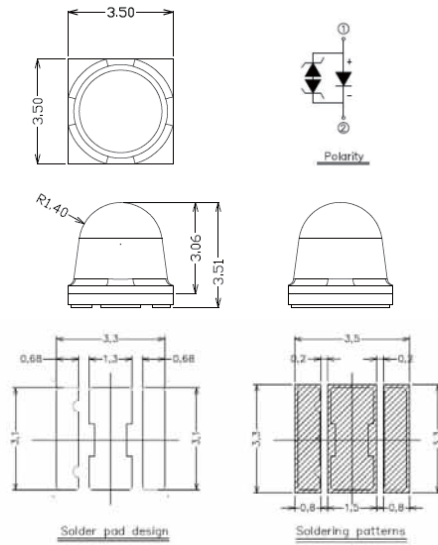
3535 ceramic substrate / 1.8W / 3.5V / 500mA / 120°

Product	Size (LxWxHmm)	View Angle	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA3535OGB-P6070U23240500-VD1M	3.5x3.5x2.35	120°	3.2~4.0	500	360~370	1000
ELUA3535OGB-P8090U23240500-VD1M	3.5x3.5x2.35	120°	3.2~4.0	500	380~390	1000
ELUA3535OGB-P9000U23240500-VD1M	3.5x3.5x2.35	120°	3.2~4.0	500	390~400	1000
ELUA3535OGB-P0010U23240500-VD1M	3.5x3.5x2.35	120°	3.2~4.0	500	400~410	1000

UVA | HIGH POWER LED | 3535



UNIT : mm



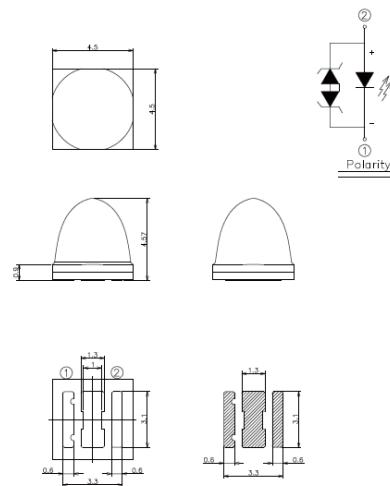
3535 ceramic substrate / 1.8W / 3.5V / 500mA / 50°

Product	Size (LxWxHmm)	View Angle	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA3535OG5-P6070U13240500-VD1M	3.5x3.5x3.51	50°	3.2~4.0	500	360~370	900
ELUA3535OG5-P8090U23240500-VD1M	3.5x3.5x3.51	50°	3.2~4.0	500	380~390	1000
ELUA3535OG5-P9000U23240500-VD1M	3.5x3.5x3.51	50°	3.2~4.0	500	390~400	1000
ELUA3535OG5-P0010U23240500-VD1M	3.5x3.5x3.51	50°	3.2~4.0	500	400~410	1000

UVA | HIGH POWER LED | 4545



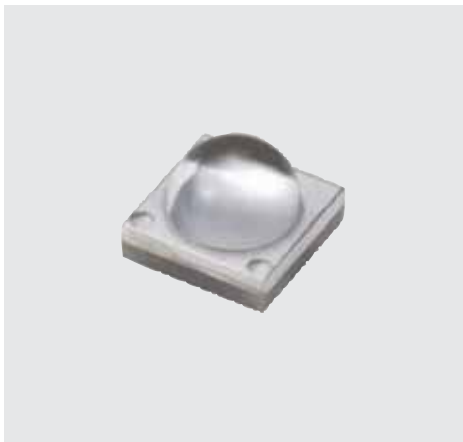
UNIT : mm



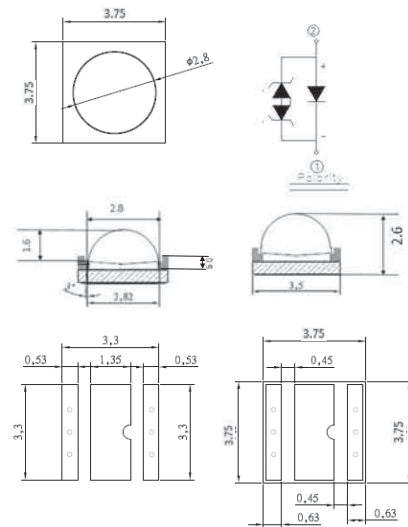
4545 ceramic substrate / 1.8W / 3.5V / 500mA / 30°

Product	Size (LxWxHmm)	View Angle	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA4545OG3-P6070U13241500-VD1M	4.5x4.5x4.57	30°	3.2~4.1	500	360~370	900
ELUA4545OG3-P8090U23241500-VD1M	4.5x4.5x4.57	30°	3.2~4.1	500	380~390	1000
ELUA4545OG3-P9000U23241500-VD1M	4.5x4.5x4.57	30°	3.2~4.1	500	390~400	1000
ELUA4545OG3-P0010U23241500-VD1M	4.5x4.5x4.57	30°	3.2~4.1	500	400~410	1000

UVA | HIGH POWER LED | 3535 Glass Lens



UNIT : mm



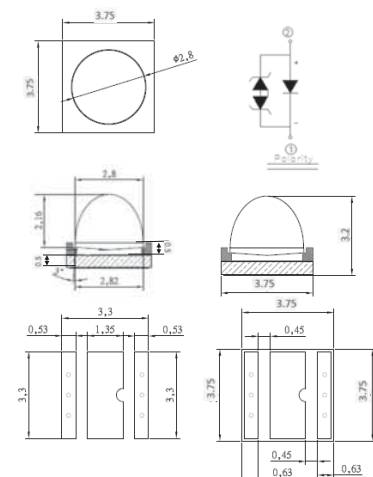
3535 ceramic substrate / 4W / 4V / 1000mA / 60°

Product	Size (LxWxHmm)	View Angle	Forward	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA3535NU6-P6070U23648700-V41G	3.75x3.75x2.6	60°	3.6~4.8	700	360~370	1000
ELUA3535NU6-P8090U736481K0-V41G	3.75x3.75x2.6	60°	3.6~4.8	1000	380~390	1500
ELUA3535NU6-P9000U736481K0-V41G	3.75x3.75x2.6	60°	3.6~4.8	1000	390~400	1500
ELUA3535NU6-P0010U736481K0-V41G	3.75x3.75x2.6	60°	3.6~4.8	1000	400~410	1500

UVA | HIGH POWER LED | 3535 Glass Lens



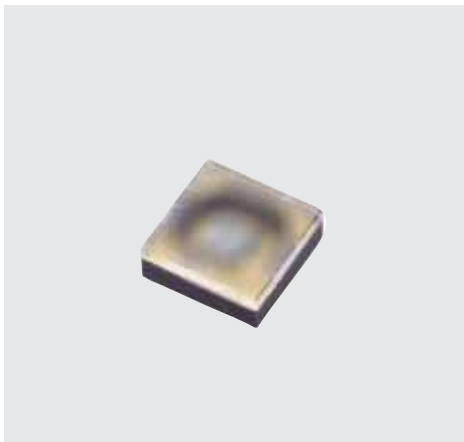
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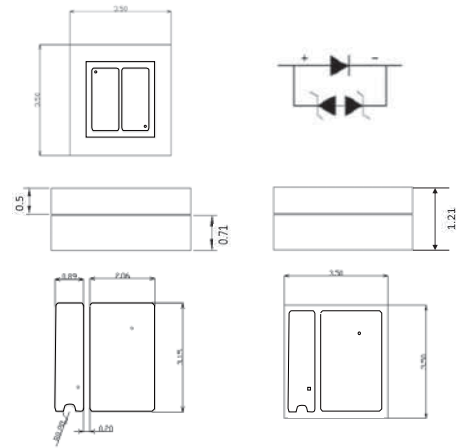
3535 ceramic substrate / 4W / 4V / 1000mA / 30°

Product	Size (LxWxHmm)	View Angle	Forward	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
ELUA3535NU3-P6070U23648700-V41G	3.75x3.75x3.2	30°	3.6~4.8	700	360~370	1000
ELUA3535NU3-P8090U736481K0-V41G	3.75x3.75x3.2	30°	3.6~4.8	1000	380~390	1500
ELUA3535NU3-P9000U736481K0-V41G	3.75x3.75x3.2	30°	3.6~4.8	1000	390~400	1500
ELUA3535NU3-P0010U736481K0-V41G	3.75x3.75x3.2	30°	3.6~4.8	1000	400~410	1500

UVA | LOW POWER LED | 3535



UNIT : mm



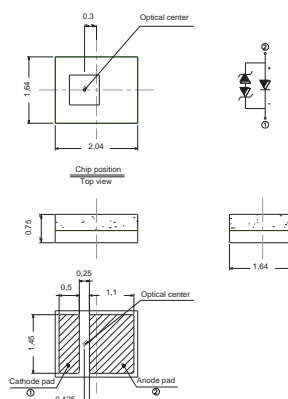
3535 ceramic substrate / 0.13W / 6V / 20mA / 120°

Product	Size (LxWxHmm)	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiant Flux (mW)
					TYP
ELUC3535OUB-P7090Q05979020-S41Q	3.5x3.5x1.3	5.9~7.9	20	270~290	2

Flash LED | High Power Flash LED | 2016 Package Dual Color



UNIT : mm

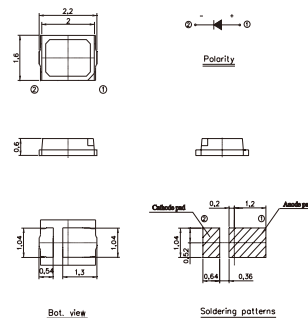


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)
ELCH07-NB2025J5J7283910-F3H	2.04x1.64x0.75	● Warm White	2000~2500	210	2.85~3.95	1000mA
ELCH07-NB5060J6J8283910-F3H	2.04x1.64x0.75	○ White	5000~6000	260	2.85~3.95	1000mA
ELCH08-NF2025J5J8283910-FDH	2.04x1.64x0.75	● Warm White	2000~2500	220	2.85~3.9	1000mA
ELCH08-NF5565J7J9283910-FDH	2.04x1.64x0.75	○ White	5500~6500	300	2.85~3.9	1000mA

Flash LED | High Power Flash LED | 2016 Package Type



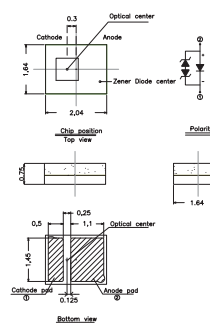
UNIT : mm



Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)	CRI
37-21S-NKK2C-H5050M41N42936Z6-2T-FS	2.2x1.6x0.6	Cool White	5000	22~33	2.9~3.6	60mA	>80
				38.8	3.3	100mA	
37-21ST-KK2C-H5050R1R42835Z15-2T-FS	2.2x1.6x0.6	Cool White	5000	50~70	2.8~3.5	150mA	>80
				117.6	3.96	350mA	



UNIT : mm

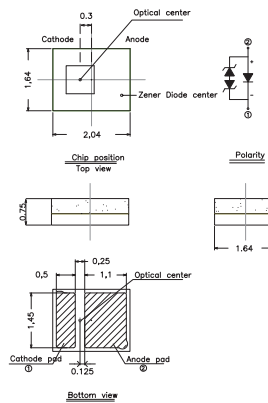


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)
ELCH07-NB5060J6J8283910-F3W	2.04x1.64x0.75	White	5000~6000	250	2.85~3.95	1000mA

### Flash LED | High Power Flash LED | 2016 Package Type



UNIT : mm

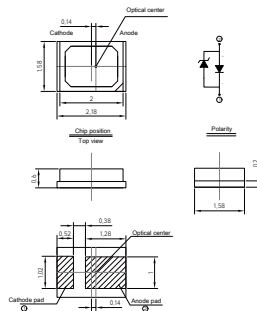


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)
ELCH08-NB5060J7J9283910-F1S	2.04x1.64x0.75	○ White	5000~6000	300	2.85~3.95	1000mA
ELCH09-NB5060J8K2283910-FDX	2.04x1.64x0.75	○ White	5000~6000	350	2.85~3.95	1000mA

### Flash LED | High Power Flash LED | 2016 Package HCRI Type



UNIT : mm

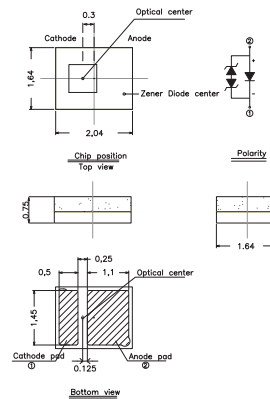


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)	CRI
ELEM-KB5060F9J4294003-T6C	2.18x1.58x0.6	○ White	5000~6000	115	2.95~4.05	350mA	>80

Flash LED | High Power Flash LED | 2016 Package HCRI Type



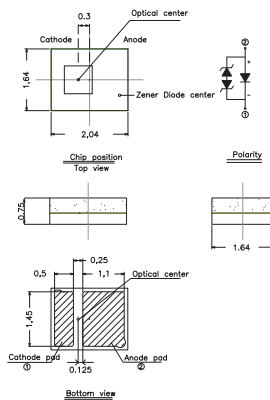
UNIT : mm



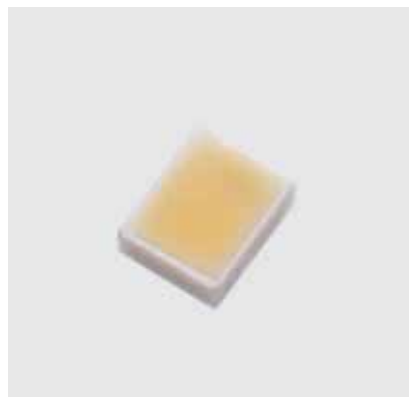
Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)	CRI
ELCH07-KB4050J5J8283910-F3H	2.04x1.64x0.75	○White	4000~5000	220	2.85~3.95	1000mA	>80
ELCH08-KB4050J6J8283910-FDH	2.04x1.64x0.75	○White	4000~5000	250	2.85~3.95	1000mA	>80



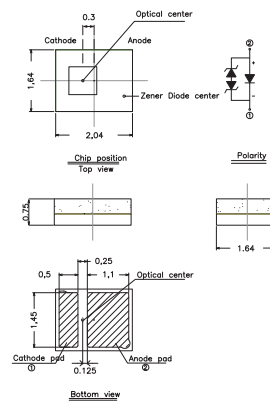
UNIT : mm



Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)	CRI
ELCH08-KB5060J7J9283810-FDX	2.04x1.64x0.75	○White	5000~6000	300	2.85~3.8	1000mA	>80



UNIT : mm

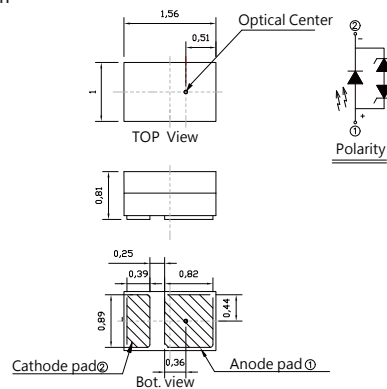


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)	CRI
ELCH08-HB3545J6J8283910-FDS	2.04x1.64x0.75	○White	3500~4500	220	2.85~3.95	1000mA	>90

Flash LED | High Power Flash LED | 1610 Package Dual Type



UNIT : mm

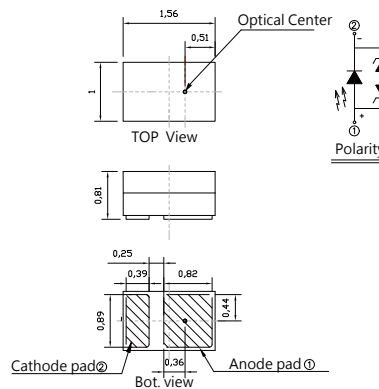


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)
ELAT07-NB2025J5J7293910-F3Y	1.56x1.0x0.81	Warm White	2000~2500	200	2.95~3.95	1000mA
ELAT07-NB5060J6J8293910-F3X	1.56x1.0x0.81	Cool White	5000~6000	260	2.95~3.95	1000mA

Flash LED | High Power Flash LED | 1610 Package HCRI Type



UNIT : mm

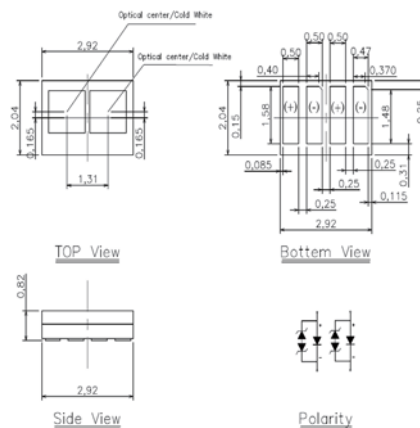


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	CRI	I <sub>F</sub> (mA)
ELAT07-KB4050J5J7293910-F1S	1.56x1.0x0.81	Cool White	4000~5000	220	2.95~3.95	>80	1000

Flash LED | High Power Flash LED | ELDA Series



UNIT : mm



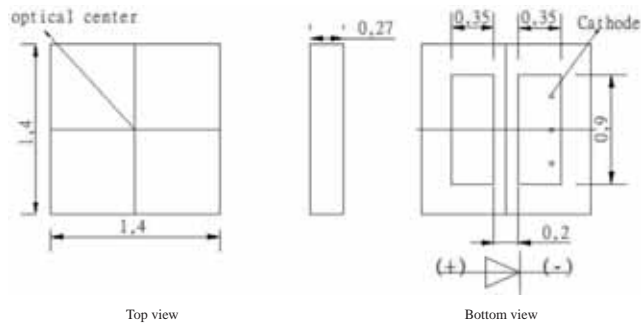
Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	I <sub>F</sub> (mA)	CRI
ELDA06-HB2555J3J8283910-FCX	2.92x2.04x0.82	Warm White	2250 ~2750	170	2.85~3.95	1000mA	>90
		Cold White	5000~6000	220	2.85~3.95	1000mA	
ELDA08-NB5060J6J8283910-FCX	2.92x2.04x0.82	Cold White	5000~6000	270	2.85~3.95	1000mA	NA



Flash LED | High Power Flash LED | CSP Dual Color Type

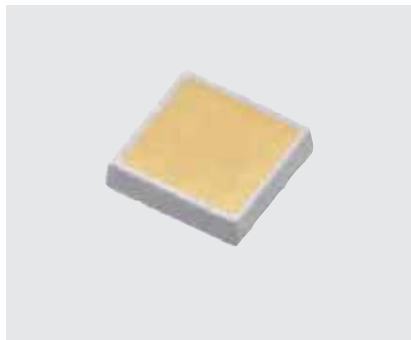


UNIT : mm

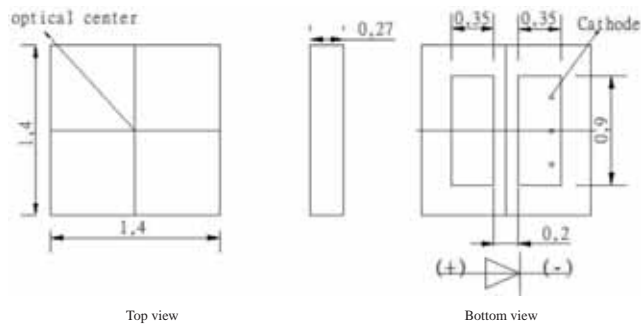


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lm)	Forward Voltage (V)	If(mA)
ELCS14B-NB2025J6J8283910-F4Z	1.4X1.4X0.27	Warm White	2000~2500	230	2.85~3.95	1000mA
ELCS14B-NB5060J7J9283910-F4Z	1.4X1.4X0.27	White	5000~6000	290	2.85~3.95	1000mA

Flash LED | High Power Flash LED | CSP HCRI Type

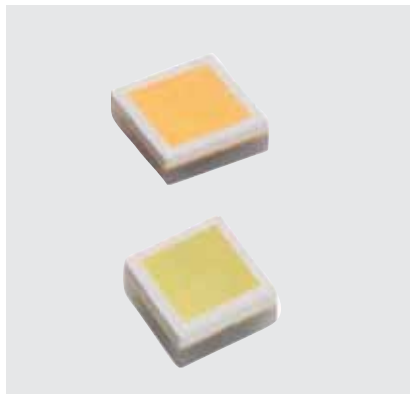


UNIT : mm

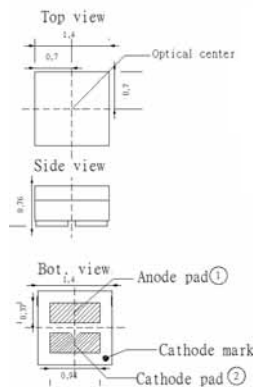


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lx)	Forward Voltage (V)	If(mA)	CRI
ELCS14B-KB4050J6J8283910-FCZ	1.4X1.4X0.27	White	4000~5000	250	2.85~3.95	1000mA	>80

Flash LED | High Power Flash LED | CSP with substrate

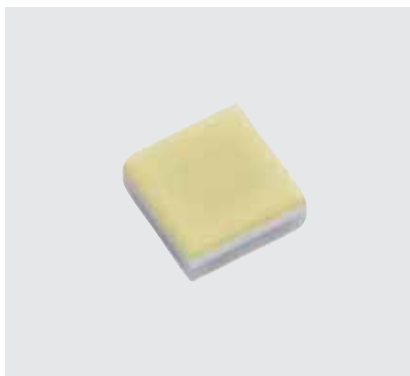


UNIT : mm

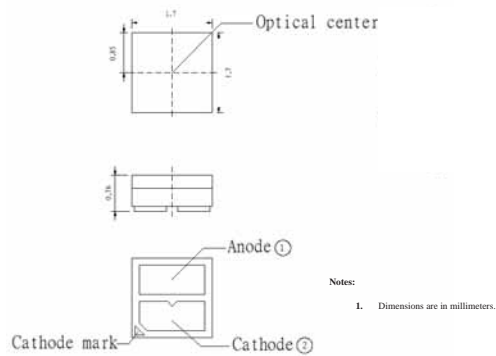


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lx)	Forward Voltage (V)	If(mA)
ELCS14G-NB2025J6J7293910-F3Y	1.4X1.4X0.76	Warm White	2000~2500	220	2.95~3.95	1000mA
ELCS14G-NB5060J6J8293910-F3X	1.4X1.4X0.76	Cold White	5000~6000	245	2.95~3.95	1000mA

Flash LED | High Power Flash LED | CSP with substrate



UNIT : mm

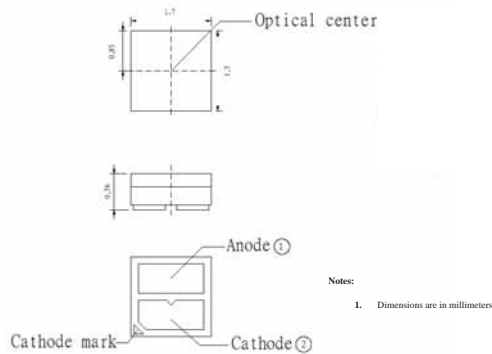


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lx)	Forward Voltage (V)	If(mA)
ELCS17G-NB4050J8K1293910-F4X	1.7X1.7X0.76	Cold White	4000~5000	330	2.95~3.95	1000mA

Flash LED | High Power Flash LED | CSP HCRI with substrate

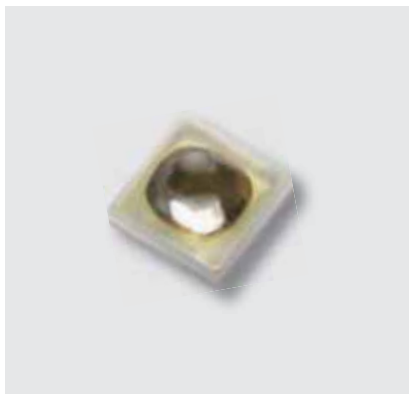


UNIT : mm

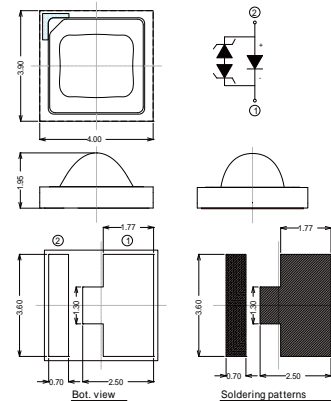


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Luminous Flux (lx)	Forward Voltage (V)	If(mA)	CRI
ELCS17G-KB4050J8K1293910-F6X	1.7X1.7X0.76	Cold White	4000~5000	330	2.95~3.95	1000mA	>80

Flash LED | High Power Flash LED | Module Type



UNIT : mm

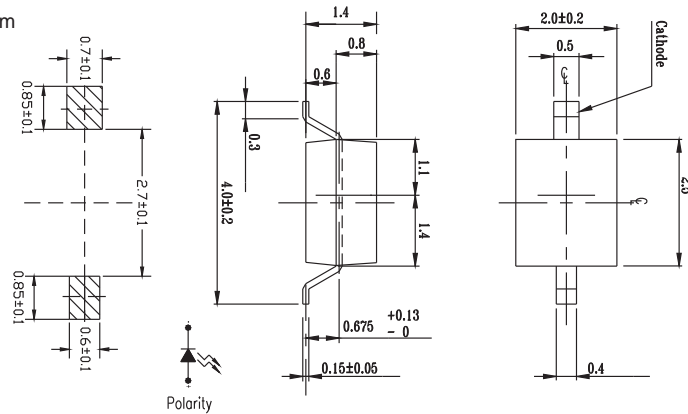


Product	Size (LxWxHmm)	Color	CCT (K)	Typ. Illuminance (lx)	Forward Voltage (V)	I <sub>f</sub> (mA)
ELYU03-5070J5J7294310-N0	4.0x3.9x1.95	White	5000~7000	265	2.95~4.35	1000mA
ELYU03-5060J5J7294310-N0	4.0x3.9x1.95	White	5000~7000	265	2.95~4.05	1000mA

SMD LED | Subminiature LED Lamps (Leadframe)



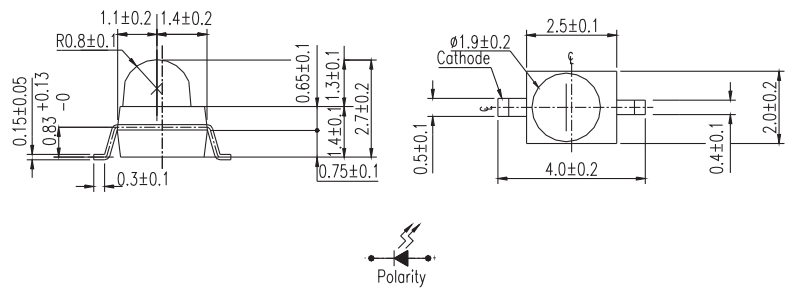
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
28-21SDRC/S530-A3/TR8	2.5x2.0x1.4	● Deep Red	639	20 / 27	N	1.7	2	2.4	20
28-21SURC/S530-A2/TR8	2.5x2.0x1.4	● Hyper Red	624	11 / 26	N	N	2	2.4	20
28-21UYC/S530-A3/TR8	2.5x2.0x1.4	● Super Yellow	589	21 / 33	N	N	2	2.4	20



UNIT : mm

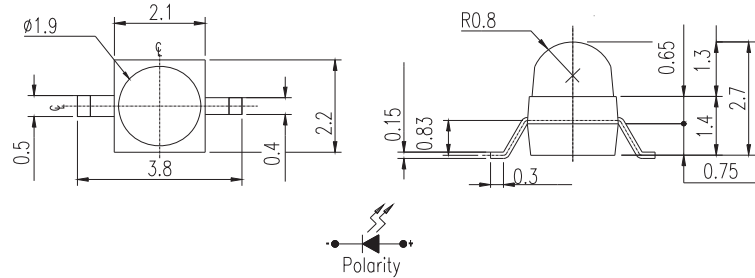


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
91-21SUBC/S400-A6/TR7	2.0x2.5x2.7	● Super Blue	470	650 / 800	N	N	3.5	4.0	20
91-21SUGC/S400-A4/TR7	2.0x2.5x2.7	● Super Green	525	2000 / 2300	N	N	3.5	4.3	20
91-21SURC/S530-A6/TR7	2.0x2.5x2.7	● Hyper Red	624	802 / 1232	N	N	2	2.4	20
91-21SYGC/S530-E4/TR7	2.0x2.5x2.7	● Super Yellow Green	573	528 / 594	N	N	2	2.4	20
91-21USRC/S530-A4/TR7	2.0x2.5x2.7	● Dark Red	631	344 / 578	N	N	2	2.4	20

SMD LED | Subminiature LED Lamps (Leadframe)



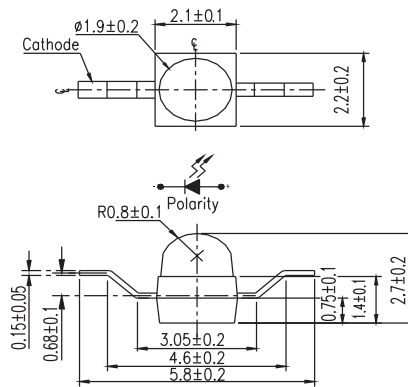
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
95-21SUGC/S400-A4/TR7	2.1x2.2x2.7	● Super Green	525	2000 / 2300	N	N	3.5	4.3	20
95-21SYGC/S530-E2/TR7	2.1x2.2x2.7	● Brilliant Yellow Green	573	264 / 330	N	1.7	2	2.4	20
95-21USRD/S357/TR7	2.1x2.2x2.7	● Dark Red	631	45 / 100	N	N	2	2.4	20
95-21UYC/S530-A5/TR7	2.1x2.2x2.7	● Super Yellow	589	793 / 1156	N	N	2	2.4	20



UNIT : mm



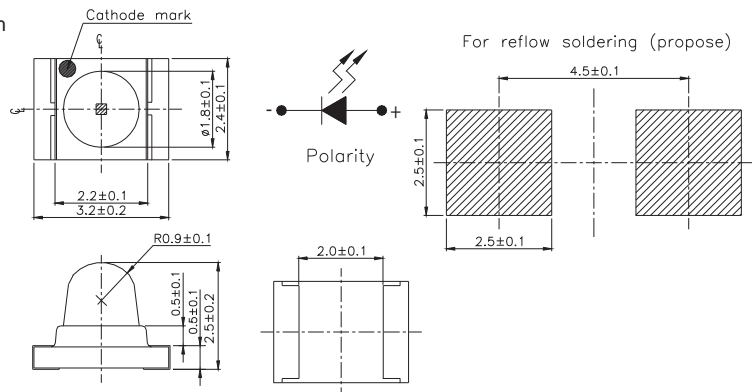
95-21F10/TR10

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
95-21SDRC/S530-A3/TR10	2.1x2.2x2.7	● Brilliant Red	639	330 / 495	N	1.7	2	2.4	20
95-21SUBC/S400-A5/TR10	2.1x2.2x2.7	● Super Blue	470	500 / 800	N	N	3.5	4.3	20

SMD LED | Surface Mount Chip LED (PCB) | Top View LED



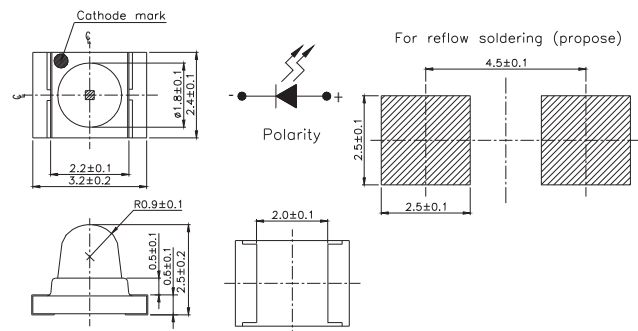
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
42-21/BHC-AUW/1T	3.2x2.4x2.5	● Blue	470	450	1800	2.7 / 3.3	3.7	20



UNIT : mm

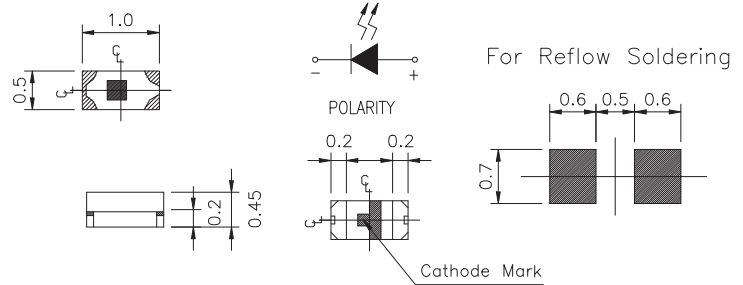


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
42-21A/BHC-ZV1W2N/1T	3.2x2.4x2.5	● Blue	470	715	1800	2.65	3.75	20
42-21A/GHC-YX1Y2N/1T	3.2x2.4x2.5	● Brilliant Green	525	1800	4500	2.7	3.7	20

SMD LED | Surface Mount Chip LED (PCB) | Top View 0402 (0.2T~0.5T)



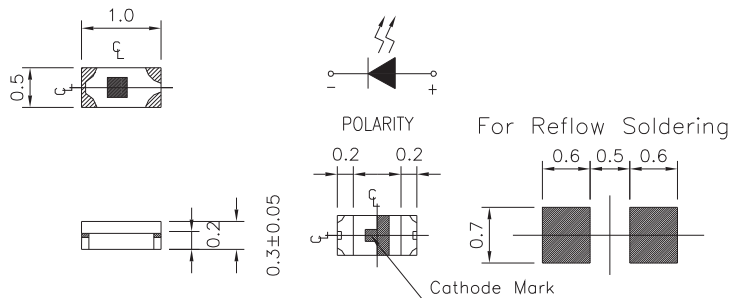
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_V$ Min./Typ. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
16-213/BHC-AN1P2/3T	1.0x0.5x0.45	● Blue	470	28.5	72	2.7 / 3.3	3.7	20
16-213/BHC-ZL1M2QY/3T	1.0x0.5x0.45	● Blue	470	11.5	28.5	2.7	3.2	5
16-213/GHC-YR1S1/3T	1.0x0.5x0.45	● Brilliant Green	525	112	225	2.7 / 3.3	3.7	20
16-213/R6C-A2225VZ/3T	1.0x0.5x0.45	● Brilliant Red	624	20	40.5	1.7	2.2	10
16-213/T3D-AP1Q2QY/3T	1.0x0.5x0.45	○ Pure White	x=0.29, y=0.30	45	112	2.7	3.2	5
16-213/T7D-AQ1R1QY/3T	1.0x0.5x0.45	○ Pure White	x=0.29, y=0.30	72	140	2.7	3.2	5



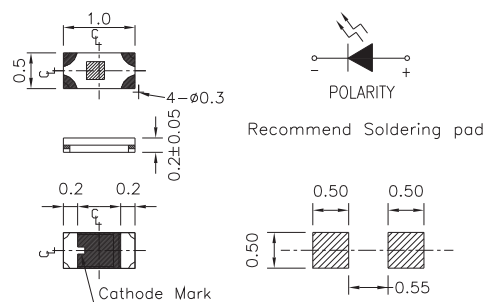
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_V$ Min./Typ. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
16-216/T3D-AQ1R2TY/3T	1.0x0.5x0.3	○ Pure White	x=0.29, y=0.30	72	180	2.6	3	5



UNIT : mm



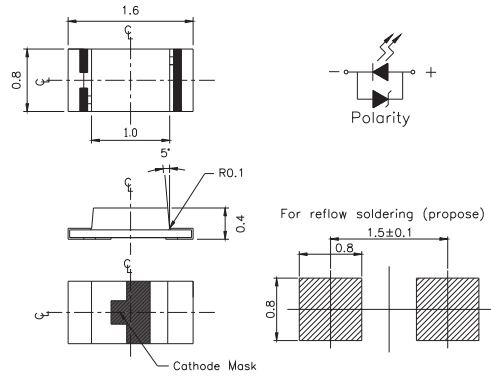
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_V$ Min./Typ. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
16-219A/T2D-AR2T1QY/3T	1.0x0.5x0.2	○ Pure White	x=0.29, y=0.30	140	360	2.7	3.2	5

SMD LED

SMD LED ■ Surface Mount Chip LED (PCB) ■ Top View 0603 (0.2T~0.8T)



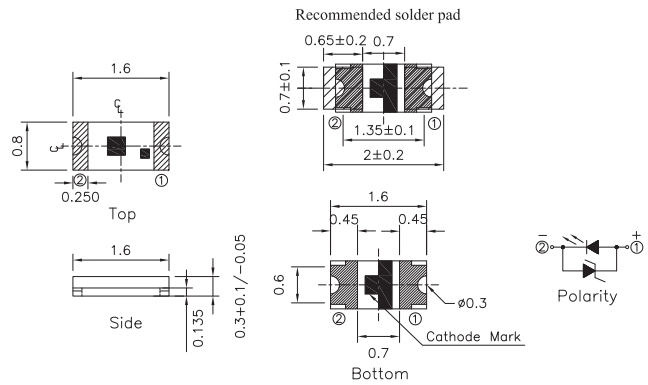
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-117/BHC-YJ2K2TX/3T	1.6x0.8x0.4	● Blue	470	5.8	11.5	2.6	3	2
19-117/BHC-ZL1M2RY/3T	1.6x0.8x0.4	● Blue	470	11.5	28.5	2.5	3.1	5
19-117/T1D-AP2Q2QY/3T	1.6x0.8x0.4	○ Pure White	x=0.274, y=0.226	57	112	2.7	3.2	5



UNIT : mm

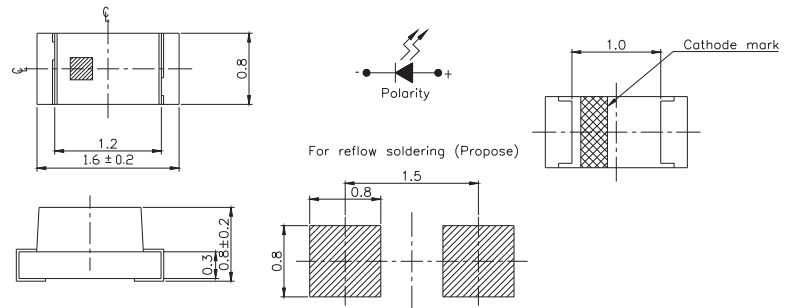


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-118/BHC-ZL1M2QY/3T	1.6x0.8x0.3	● Blue	470	11.5	28.5	2.7	3.2	5

SMD LED | Surface Mount Chip LED (PCB) | Top View 0603 (0.2T~0.8T)



UNIT : mm



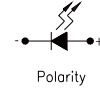
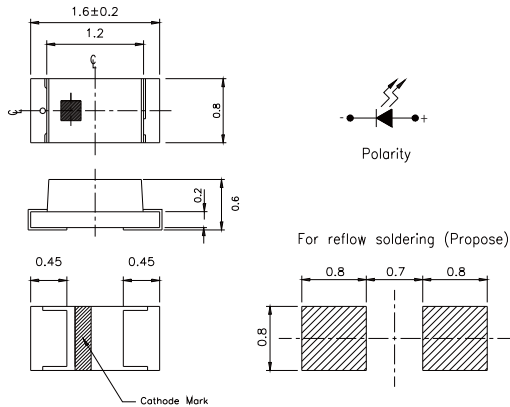
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-21/B6C-AP2Q2M/3T	1.6x0.8x0.8	Blue	470	57	112	2.75	3.95	20
19-21/BHC-AP1Q2/3T	1.6x0.8x0.8	Blue	470	45	112	2.7 / 3.3	3.7	20
19-21/BHC-YL1M1RY/3T	1.6x0.8x0.8	Blue	470	11.5	22.5	2.5	3.1	5
19-21/BHC-ZQ1R2N/3T	1.6x0.8x0.8	Blue	470	72	180	2.7	3.7	20
19-21/G6C-AL1M2LY/3T	1.6x0.8x0.8	Brilliant Yellow Green	573	11.5	28.5	1.7	2.3	5
19-21/G6C-FM1N2B/3T	1.6x0.8x0.8	Brilliant Yellow Green	573	18	45	1.75	2.35	20
19-21/G6C-FP1Q1L/3T	1.6x0.8x0.8	Brilliant Yellow Green	573	45	90	1.7	2.3	20
19-21/GHC-YN1P2QY/3T	1.6x0.8x0.8	Brilliant Green	525	28.5	72	2.7	3.2	5
19-21/GPC-FL1M2B/3T	1.6x0.8x0.8	Green	562	11.5	28.5	1.75	2.35	20
19-21/R6C-AL2N1VY/3T	1.6x0.8x0.8	Brilliant Red	624	14.5	36	1.7	2.2	5
19-21/R6C-FP1Q2L/3T	1.6x0.8x0.8	Brilliant Red	624	45	112	1.7	2.3	20
19-21/R7C-AK1L2BY/3T	1.6x0.8x0.8	Deep Red	631	7.2	18	1.75	2.35	5
19-21/R7C-AN2Q1B/3T	1.6x0.8x0.8	Deep Red	631	36	90	1.75	2.35	20
19-21/R8C-FN2Q1L/3T	1.6x0.8x0.8	Deep Red	639	36	90	1.7	2.3	20
19-21/S2C-AL2M2VY/3T	1.6x0.8x0.8	Brilliant Orange	605	14.5	28.5	1.7	2.2	5
19-21/S2C-AQ1R2B/3T	1.6x0.8x0.8	Brilliant Orange	605	72	180	1.75	2.35	20
19-21/T1D-ANPHY/3T	1.6x0.8x0.8	Pure White	x=0.274, y=0.226	28.5	72	2.7	3.15	5
19-21/T1D-CPQTY/3T	1.6x0.8x0.8	Pure White	x=0.274, y=0.226	45	112	2.6	3	5
19-21/Y2C-AL1M2VY/3T	1.6x0.8x0.8	Brilliant Yellow	589	11.5	28.5	1.7	2.2	5
19-21/Y2C-CP1Q2B/3T	1.6x0.8x0.8	Brilliant Yellow	589	45	112	1.75	2.35	20



SMD LED | Surface Mount Chip LED (PCB) | Top View 0603 (0.2T~0.8T)



UNIT : mm

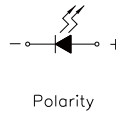
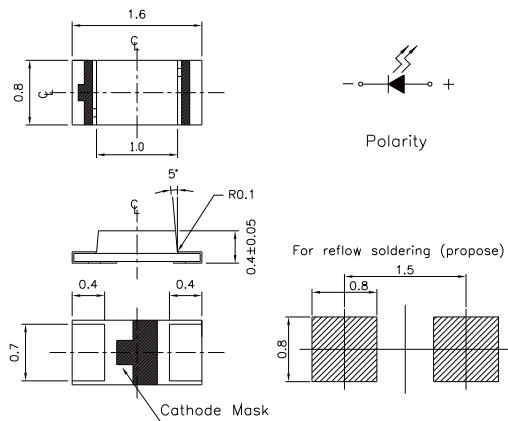


For reflow soldering (Propose)

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-213A/T1D-CP2Q2HY/3T	1.6x0.8x0.6	○ Pure White	x=0.274, y=0.226	57	112	2.7	3.15	5



UNIT : mm



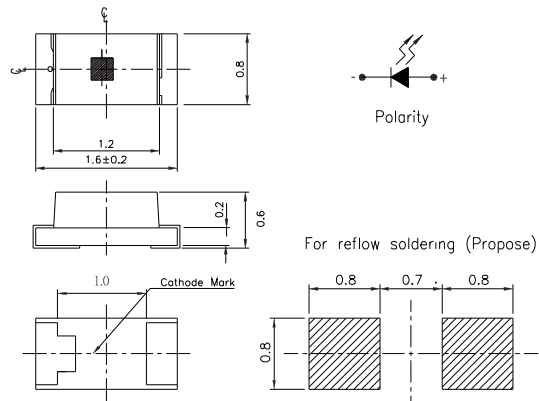
For reflow soldering (propose)

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-217/B9C-ANQE/3T	1.6x0.8x0.4	● Blue	470	28.5	112	2.75	3.65	20
19-217/BHC-AN1P2/3T	1.6x0.8x0.4	● Blue	470	28.5	72	2.7 / 3.3	3.7	20
19-217/BHC-XK1L2B11X/3T	1.6x0.8x0.4	● Blue	470	7.2	18	2.6	2.9	2
19-217/BHC-YL2M2TY/3T	1.6x0.8x0.4	● Blue	470	14.5	28.5	2.6	3	5
19-217/G7C-AL1M2B/3T	1.6x0.8x0.4	● Brilliant Yellow Green	573	11.5	28.5	1.75	2.35	20
19-217/GHC-YR1S2/3T	1.6x0.8x0.4	● Brilliant Green	525	112	285	2.7 / 3.3	3.7	20
19-217/R6C-P1Q2/3T	1.6x0.8x0.4	● Brilliant Red	624	45	112	1.7 / 2	2.4	20
19-217/S2C-AL1M2VY/3T	1.6x0.8x0.4	● Brilliant Orange	605	11.5	28.5	1.7	2.2	5
19-217/S3C-AL2N1VY/3T	1.6x0.8x0.4	● Reddish Orange	615	14.5	36	1.7	2.2	5
19-217/T1D-ANPHY/3T	1.6x0.8x0.4	○ Pure White	x=0.274, y=0.226	28.5	72	2.7	3.15	5
19-217/T1D-JP1Q2QY/3T	1.6x0.8x0.4	○ Pure White	x=0.274, y=0.226	45	112	2.7	3.2	5
19-217/Y5C-AM1N1VY/3T	1.6x0.8x0.4	● Brilliant Yellow	589	18	36	1.7	2.2	5
19-217/Y5C-APQB/3T	1.6x0.8x0.4	● Brilliant Yellow	589	45	112	1.75	2.35	20
19-217/Y5C-AQ2R2/3T	1.6x0.8x0.4	● Brilliant Yellow	589	90	180	1.7 / 2	2.4	20

SMD LED | Surface Mount Chip LED (PCB) | Top View 0603 (0.2T~0.8T)



UNIT : mm



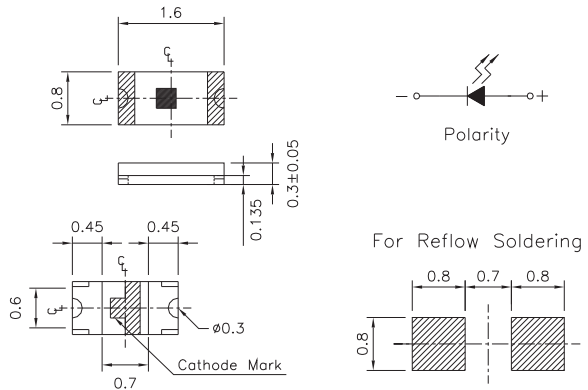
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-213/Y2C-CQ1R2/3T	1.6x0.8x0.6	● Brilliant Yellow	589	72	180	1.7 / 2	2.4	20
19-213/B7C-AQ2S1B2/3T	1.6x0.8x0.6	● Blue	470	90	225	2.9	3.6	20
19-213/BHC-AN1P2/3T	1.6x0.8x0.6	● Blue	470	28.5	72	2.7 / 3.3	3.7	20
19-213/G6C-AP1Q2/3T	1.6x0.8x0.6	● Brilliant Yellow Green	573	45	112	2	2.4	20
19-213/G6C-BM1N2B/3T	1.6x0.8x0.6	● Brilliant Yellow Green	573	18	45	1.75	2.35	20
19-213/G6C-FN2Q1L/3T	1.6x0.8x0.6	● Brilliant Yellow Green	573	36	90	1.7	2.3	20
19-213/G6W-FN1P1B/3T	1.6x0.8x0.6	● Brilliant Yellow Green	573	28.5	57	1.75	2.35	20
19-213/GHC-XS1T1N/3T	1.6x0.8x0.6	● Brilliant Green	525	180	360	2.7	3.7	20
19-213/GHC-YP1Q2QY/3T	1.6x0.8x0.6	● Brilliant Green	525	45	112	2.7	3.2	5
19-213/GHC-YR1S2/3T	1.6x0.8x0.6	● Brilliant Green	525	112	285	3.5	4	20
19-213/R6C-AM2P1VY/3T	1.6x0.8x0.6	● Brilliant Red	624	22.5	57	1.7	2.2	5
19-213/R6C-AN1P2/3T	1.6x0.8x0.6	● Brilliant Red	624	28.5	72	1.7 / 2	2.4	20
19-213/R6C-AN2Q1B/3T	1.6x0.8x0.6	● Brilliant Red	624	36	90	1.75	2.35	20
19-213/R6C-AP1Q2B/3T	1.6x0.8x0.6	● Brilliant Red	624	45	112	1.75	2.35	20
19-213/R6C-AQ1R2B/3T	1.6x0.8x0.6	● Brilliant Red	624	72	180	1.75	2.35	20
19-213/R8C-FN1P2/3T	1.6x0.8x0.6	● Deep Red	639	28.5	72	1.7 / 2	2.4	20
19-213/S2C-AN1P2B/3T	1.6x0.8x0.6	● Brilliant Orange	605	28.5	72	1.75	2.35	20
19-213/S3C-AN2P2B/3T	1.6x0.8x0.6	● Reddish Orange	615	36	72	1.75	2.35	20
19-213/T1D-ANPHY/3T	1.6x0.8x0.6	○ Pure White	x=0.274, y=0.226	28.5	72	2.7	3.15	5
19-213/Y2C-AP1Q2B/3T	1.6x0.8x0.6	● Brilliant Yellow	589	45	112	1.75	2.35	20
19-213/Y2C-CN1P2/3T	1.6x0.8x0.6	● Brilliant Yellow	589	28.5	72	1.7 / 2	2.4	20
19-213/Y2C-CP1Q2L/3T	1.6x0.8x0.6	● Brilliant Yellow	589	45	112	1.7	2.3	20
19-213/Y2C-CQ2R2L/3T	1.6x0.8x0.6	● Brilliant Yellow	589	90	180	1.7	2.3	20

SMD LED

SMD LED | Surface Mount Chip LED (PCB) | Top View 0603 (0.2T~0.8T)



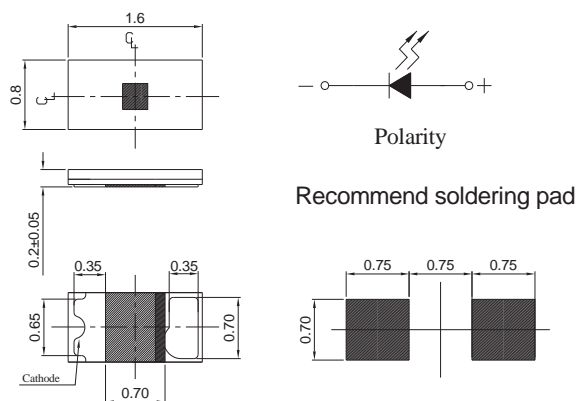
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_f$ Min./Typ. (V)	$V_f$ Max. (V)	$I_f$ (mA)
19-218/BHC-ZL1M2QY/3T	1.6x0.8x0.3	Blue	470	11.5	28.5	2.7	3.2	5
19-218/GHC-YR1S2M/3T	1.6x0.8x0.3	Brilliant Green	525	112	285	2.75	3.95	20
19-218/R6C-AL1M2VY/3T	1.6x0.8x0.3	Brilliant Red	624	11.5	28.5	1.7	2.2	5
19-218/R6C-FM2P1B7Y/3T	1.6x0.8x0.3	Brilliant Red	624	22.5	57	1.7	2	5
19-218/T1D-CQ2R2TY/3T	1.6x0.8x0.3	Pure White	x=0.274, y=0.226	90	180	2.6	3	5



UNIT : mm

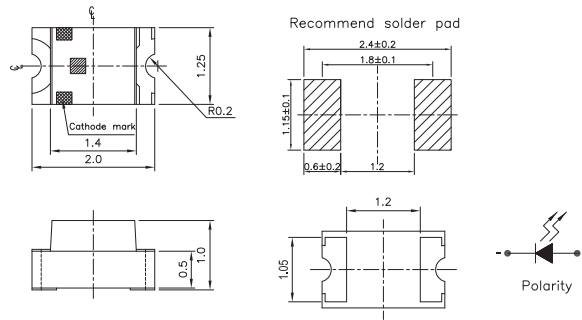


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_f$ Min./Typ. (V)	$V_f$ Max. (V)	$I_f$ (mA)
19-219/T3D-AQ2R2TY/3T	1.6x0.8x0.2	Pure White	x=0.274, y=0.226	90	180	2.6	3	5
19-219/T7D-AV1W1E/3T	1.6x0.8x0.2	Pure White	x=0.274, y=0.226	715	1420	2.75	3.65	20
19-219/Y5C-AM1N2VY/3T	1.6x0.8x0.2	Brilliant Yellow	589	18	45	1.7	2.2	5

SMD LED | Surface Mount Chip LED (PCB) | Top View 0805



UNIT : mm

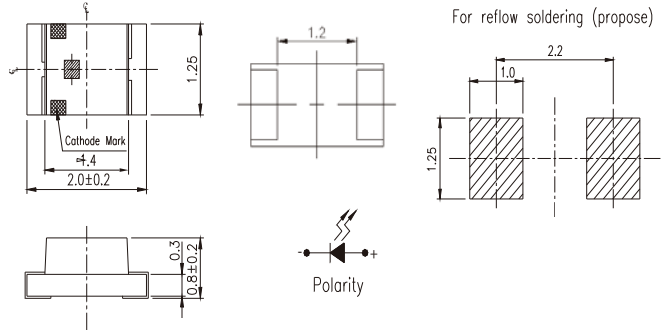


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
17-21/BHC-AN1P2/3T	2.0x1.25x1	Blue	470	28.5	72	3.5	4	20
17-21/BHC-AP1Q2/3T	2.0x1.25x1	Blue	470	45	112	2.7 / 3.3	3.7	20
17-21/BHC-XLMJY/3T	2.0x1.25x1	Blue	470	11.5	28.5	2.7	3.1	5
17-21/G6C-AN1P1B/3T	2.0x1.25x1	Brilliant Yellow Green	573	28.5	57	1.75	2.35	20
17-21/G6C-AP1Q1B/3T	2.0x1.25x1	Brilliant Yellow Green	573	45	90	1.75	2.35	20
17-21/G6C-FM1N2B/3T	2.0x1.25x1	Brilliant Yellow Green	573	18	45	1.75	2.35	20
17-21/G6C-FN1P2B/3T	2.0x1.25x1	Brilliant Yellow Green	573	28.5	72	1.75	2.35	20
17-21/G6C-FP1Q1B/3T	2.0x1.25x1	Brilliant Yellow Green	573	45	90	1.75	2.35	20
17-21/GHC-XS1T2M/3T	2.0x1.25x1	Brilliant Green	525	180	450	2.75	3.95	20
17-21/GHC-YR1S2/3T	2.0x1.25x1	Brilliant Green	525	112	285	3.5	4	20
17-21/GPC-AK0M1B/3T	2.0x1.25x1	Green	562	7.2	22.5	1.75	2.35	20
17-21/GVC-AMPB/3T	2.0x1.25x1	Green	565	18	72	1.75	2.35	20
17-21/R6C-AN2Q1B/3T	2.0x1.25x1	Brilliant Red	624	36	90	1.75	2.35	20
17-21/R6C-AP1Q2L/3T	2.0x1.25x1	Brilliant Red	624	45	112	1.7	2.3	20
17-21/R7C-AN2Q1B/3T	2.0x1.25x1	Deep Red	631	36	90	1.75	2.35	20
17-21/S2C-AN1P2B/3T	2.0x1.25x1	Brilliant Orange	605	28.5	72	1.75	2.35	20
17-21/S2C-AP1Q2B/3T	2.0x1.25x1	Brilliant Orange	605	45	112	1.75	2.35	20
17-21/T1D-ANPHY/3T	2.0x1.25x1	Pure White	x=0.274, y=0.226	28.5	72	2.7	3.15	5
17-21/T1D-CP2R1TY/3T	2.0x1.25x1	Pure White	x=0.274, y=0.226	57	140	2.6	3	5
17-21/T1D-KN2P2HY/3T	2.0x1.25x1	Pure White	x=0.274, y=0.226	36	72	2.7	3.15	5
17-21/Y2C-AN1P2/3T	2.0x1.25x1	Brilliant Yellow	589	28.5	72	1.7 / 2	2.4	20
17-21/Y2C-CN1P2B/3T	2.0x1.25x1	Brilliant Yellow	589	28.5	72	1.75	2.35	20
17-21/Y2C-CP2Q2B/3T	2.0x1.25x1	Brilliant Yellow	589	57	112	1.75	2.35	20

SMD LED | Surface Mount Chip LED (PCB) | Top View 0805



UNIT : mm

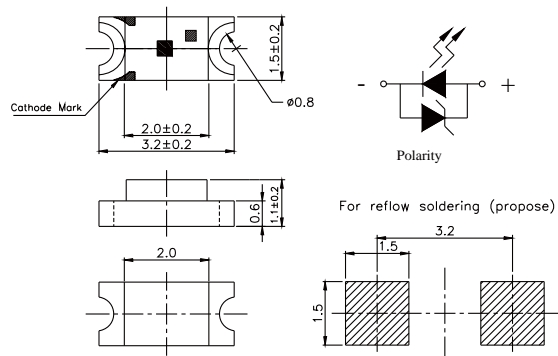


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
17-215/B6C-YP2R2/3T	2.0x1.25x0.8	Blue	470	57	180	2.7 / 3.0	3.7	20
17-215/BHC-AN1P2/3T	2.0x1.25x0.8	Blue	470	28.5	72	2.7 / 3.3	3.7	20
17-215/BHC-BP2Q2M/3T	2.0x1.25x0.8	Blue	470	57	112	2.75	3.95	20
17-215/G6C-BM1N2L/3T	2.0x1.25x0.8	Brilliant Yellow Green	573	18	45	1.7	2.3	20
17-215/G6C-FN2P2B/3T	2.0x1.25x0.8	Brilliant Yellow Green	573	36	72	1.75	2.35	20
17-215/R6C-AQ1R2B/3T	2.0x1.25x0.8	Brilliant Red	624	72	180	1.75	2.35	20
17-215/S2C-AQ1R2B/3T	2.0x1.25x0.8	Brilliant Orange	605	72	180	1.75	2.35	20
17-215/S2C-CP2R1B/3T	2.0x1.25x0.8	Brilliant Orange	605	57	140	1.75	2.35	20

SMD LED | Surface Mount Chip LED (PCB) | Top View 1206



UNIT : mm

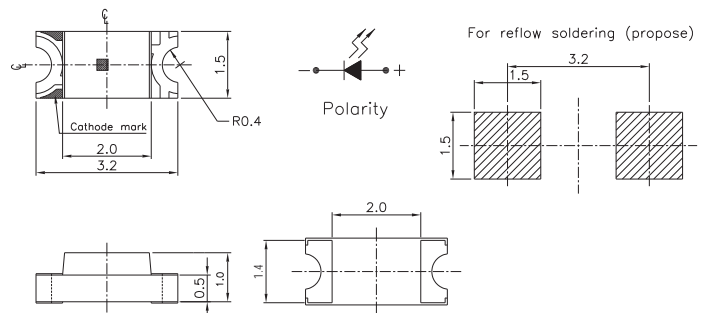


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
15-11/BHC-AN1P2/2T	3.2x1.5x1.0	Blue	470	28.5	72	2.7 / 3.3	3.7	20
15-11/BHC-ZL2N1QY/2T	3.2x1.5x1.0	Blue	470	14.5	36	2.7	3.2	5

SMD LED | Surface Mount Chip LED (PCB) | Top View 1206



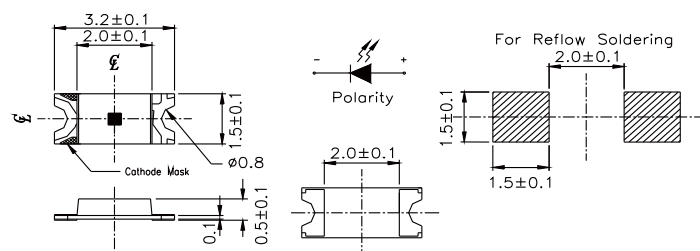
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_V$ Min./Typ. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
15-21/B6C-YR1S2B2/2T	3.2x1.5x1.0	● Blue	470	112	285	2.9	3.6	20
15-21/B6C-ZQ1R1N/2T	3.2x1.5x1.0	● Blue	470	72	140	2.7	3.7	20
15-21/BHC-AN1P2/2T	3.2x1.5x1.0	● Blue	470	28.5	72	2.7 / 3.3	3.7	20
15-21/G6C-BK1L2VY/2T	3.2x1.5x1.0	● Brilliant Yellow Green	573	7.2	18	1.7	2.2	5
15-21/G6C-FM1N2B/2T	3.2x1.5x1.0	● Brilliant Yellow Green	573	18	45	1.75	2.35	20
15-21/G6C-FP1Q1L/2T	3.2x1.5x1.0	● Brilliant Yellow Green	573	45	90	1.7	2.3	20
15-21/GHC-R2S2/2T	3.2x1.5x1.0	● Brilliant Green	525	140	285	2.7 / 3.3	3.7	20
15-21/GHC-YR1S1/2T	3.2x1.5x1.0	● Brilliant Green	525	112	225	3.5	3.7	20
15-21/R6C-AN1P2/2T	3.2x1.5x1.0	● Brilliant Red	624	28.5	72	1.7 / 2	2.4	20
15-21/R6C-FQ1R1B/2T	3.2x1.5x1.0	● Brilliant Red	624	72	140	1.75	2.35	20
15-21/S2C-AL2M2VY/2T	3.2x1.5x1.0	● Brilliant Orange	605	14.5	28.5	1.7	2.2	5
15-21/S2C-AQ2R2B/2T	3.2x1.5x1.0	● Brilliant Orange	605	90	180	1.75	2.35	20
15-21/S3C-AP1Q2/2T	3.2x1.5x1.0	● Reddish Orange	615	45	112	1.7 / 2.0	2.4	20
15-21/T1D-CP1Q2TY/2T	3.2x1.5x1.0	○ Pure White	$x=0.274, y=0.226$	45	112	2.6	3	5
15-21/T7D-JQ2S1PY/2T	3.2x1.5x1.0	○ Pure White	$x=0.274, y=0.226$	90	225	2.7	3.3	5
15-21/Y2C-AN1P2/2T	3.2x1.5x1.0	● Brilliant Yellow	589	28.5	72	1.7 / 2	2.4	20
15-21/Y2C-CP1Q2B/2T	3.2x1.5x1.0	● Brilliant Yellow	589	45	112	1.75	2.35	20

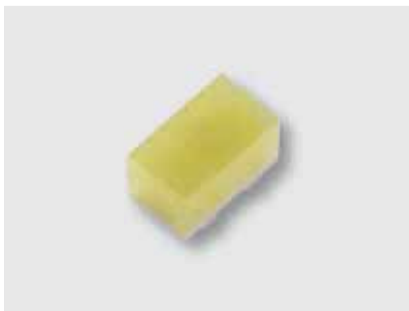


UNIT : mm

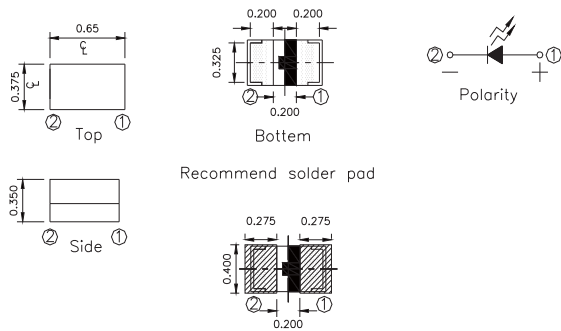


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_V$ Min./Typ. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
15-215/G7C-BN1P2B/2T	3.2x1.5x0.5	● Brilliant Yellow Green	573	28.5	72	1.75	2.35	20
15-215/R6C-AM2P1VY/2T	3.2x1.5x0.5	● Brilliant Red	624	22.5	57	1.7	2.2	5
15-215/R6C-AP1Q1L/2T	3.2x1.5x0.5	● Brilliant Red	624	45	90	1.7	2.3	20

SMD LED | Surface Mount Chip LED (PCB) | Top View Mono Color



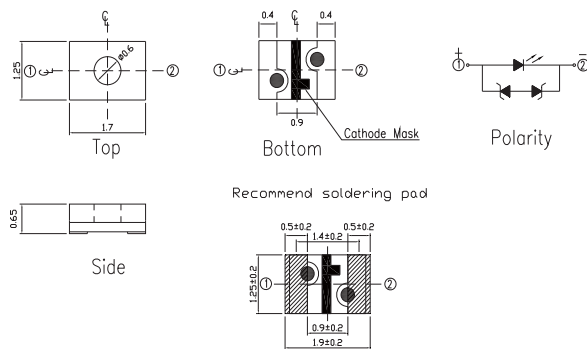
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
18-218/T1D-AN2Q1B3X/6T	0.65x0.375x0.35	○ White	0.274,0.226	36	90	2.5	2.9	2

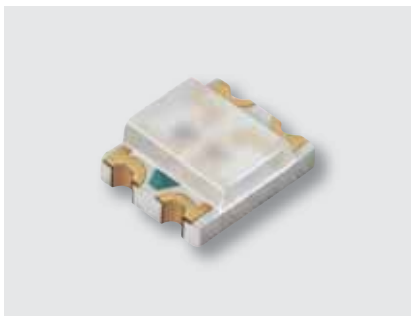


UNIT : mm

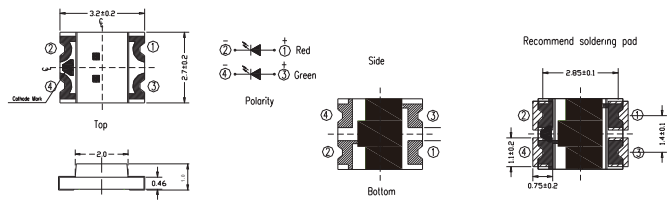


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
63-119-BHD-ZM1N2TY-3T	1.7x1.25x0.65	● Blue	470	18	45	2.6	3	5
63-119-T1D-AN2Q1TY-3T	1.7x1.25x0.65	○ White	0.274,0.226	36	90	2.6	3	5

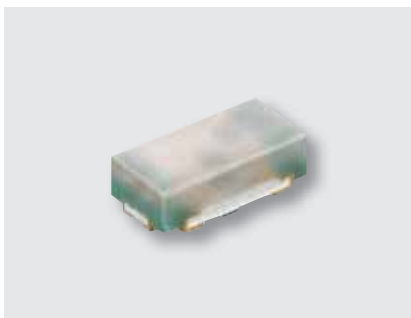
SMD LED | Surface Mount Chip LED (PCB) | Top View Bi-Color



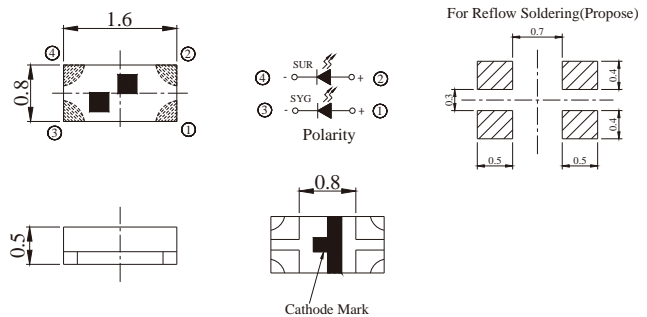
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
15-22/R6G6C-A32/2T	3.2x2.7x1.0	● Brilliant Red ● Brilliant Yellow Green	R6 : 624 G6 : 573	R6 : 28.5 G6 : 28.5	R6 : 72 G6 : 72	R6 : 1.7 / 2 G6 : 1.7 / 2	R6 : 2.4 G6 : 2.4	20
15-22/R6GHC-A01/2T	3.2x2.7x1.0	● Brilliant Red ● Brilliant Green	R6 : 624 GH : 525	R6 : 90 / 130 GH : 112 / 165	--	R6 : 1.7 / 2 GH : 2.7 / 3.3	R6 : 2.4 GH : 3.7	20



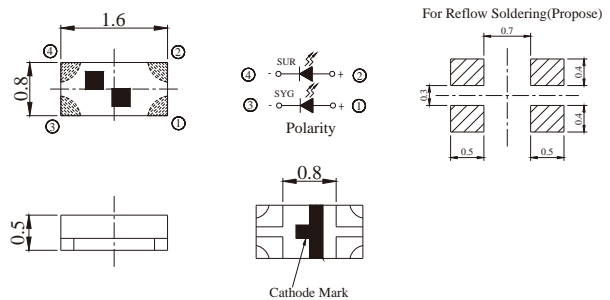
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
18-225/B6R6C-C01/3T	1.6x0.8x0.5	● Blue ● Brilliant Red	B6 : 470 R6 : 624	B6 : 18 / 28.5 R6 : 18 / 28.5	-	B6 : 2.7 / 3.3 R6 : 1.7 / 2.0	B6 : 3.7 R6 : 2.4	5
18-225/R6G6C-A01/3T	1.6x0.8x0.5	● Brilliant Red ● Brilliant Yellow Green	R6 : 624 G6 : 573	R6 : 45 G6 : 28.5	R6 : 112 G6 : 72	R6 : 1.7 / 2 G6 : 1.7 / 2	R6 : 2.4 G6 : 2.4	20
18-225/S2G6C-A01/3T	1.6x0.8x0.5	● Brilliant Orange ● Brilliant Yellow Green	S2 : 605 G6 : 573	S2 : 32 / 48 G6 : 16 / 24	-	S2 : 1.7 / 2 G6 : 1.7 / 2	S2 : 2.4 G6 : 2.4	20



UNIT : mm



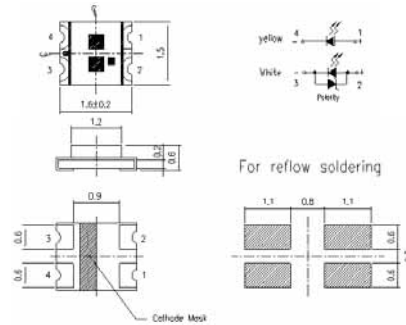
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
18-225A/R6GHW-B01/3T	1.6x0.8x0.5	● Brilliant Red ● Brilliant Green	R6 : 624 GH : 525	R6 : 28.5 GH : 72	R6 : 72 GH : 180	R6 : 1.7 / 2 GH : 2.7 / 3.3	R6 : 2.4 GH : 3.7	10



SMD LED | Surface Mount Chip LED (PCB) | Top View Bi-Color



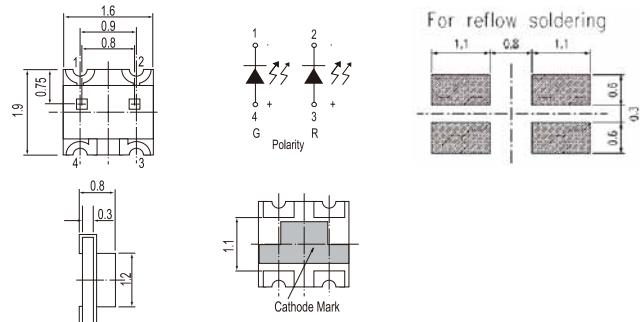
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-123/Y2ST1D-C30/2T	1.6x1.5x0.6	● Brilliant Yellow ○ Pure White	Y2S : 589 x=0.274, y=0.226	Y2S : 28.5 T1 : 45	Y2S : 72 T1 : 112	Y2S : 1.7 / 2 T1 : 2.7 / 3.3	Y2S : 2.4 T1 : 3.7	5

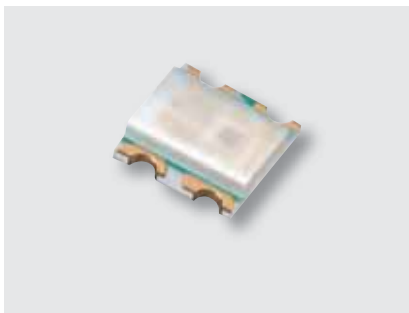


UNIT : mm

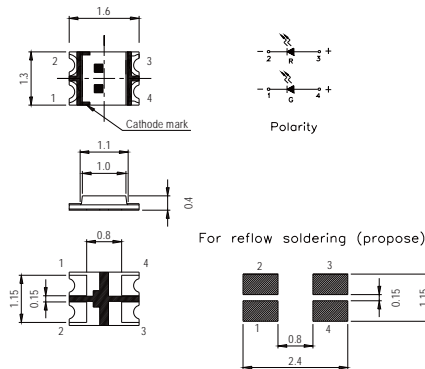


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-22/G6R6C-A31/2T	1.9x1.6x0.8	● Brilliant Yellow Green ● Brilliant Red	G6 : 573 R6 : 624	G6 : 22.5 R6 : 45	G6 : 57 R6 : 90	G6 : 1.7 / 2 R6 : 1.7 / 2	G6 : 2.4 R6 : 2.4	20
19-22/R6BHC-B01/2T	1.9x1.6x0.8	● Brilliant Red ● Blue	R6 : 624 BH : 470	R6 : 14.5 / 20 BH : 14.5 / 20	--	R6 : 1.9 BH : 2.9	R6 : 2.3 BH : 3.3	10
19-22/R6G6C-A01/2T	1.9x1.6x0.8	● Brilliant Red ● Brilliant Yellow Green	R6 : 624 G6 : 573	R6 : 45 G6 : 45	R6 : 72 G6 : 72	R6 : 1.7 / 2 G6 : 1.7 / 2	R6 : 2.4 G6 : 2.4	20
19-22/R6GHC-C02/2T	1.9x1.6x0.8	● Brilliant Red ● Brilliant Green	R6 : 624 GH : 525	R6 : 14.5 / 20 GH : 45 / 65	--	R6 : 1.9 GH : 2.9	R6 : 2.3 GH : 3.4	5
19-22/Y2G6C-A14/2T	1.9x1.6x0.8	● Brilliant Yellow ● Brilliant Yellow Green	Y2 : 589 G6 : 573	Y2 : 45 G6 : 28.5	Y2 : 112 G6 : 72	Y2 : 1.7 / 2 G6 : 1.7 / 2	Y2 : 2.4 G6 : 2.4	20

SMD LED | Surface Mount Chip LED (PCB) | Top View Bi-Color



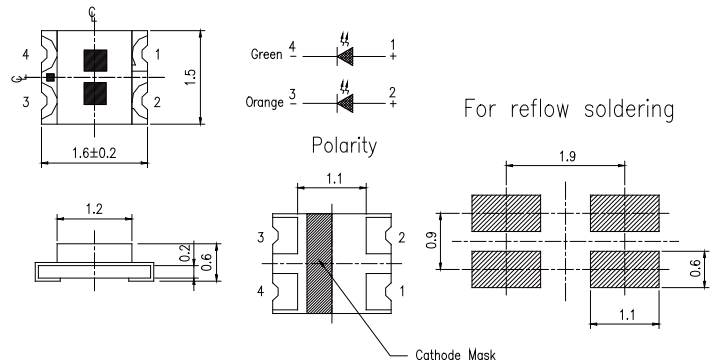
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max./Typ. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-226/R6BHC-B01/2T	1.6x1.3x0.4	● Brilliant Red ● Blue	R6 : 624 BH : 470	R6 : 72 BH : 45	Typ. R6 : 100 BH : 80	R6 : 1.7 / 2 BH : 2.7 / 3.3	R6 : 2.4 BH : 3.7	10
19-226/R6G7C-B02/2T	1.6x1.3x0.4	● Brilliant Red ● Brilliant Yellow Green	R6 : 624 G7 : 573	R6 : 22.5 G7 : 7.2	Max. R6 : 57 G7 : 18	R6 : 1.7 / 2 G7 : 1.7 / 2	R6 : 2.4 G7 : 2.4	10
19-226/R6GHC-A03/2T	1.6x1.3x0.4	● Brilliant Red ● Brilliant Green	R6 : 624 GH : 525	R6 : 72 GH : 112	Max. R6 : 140 GH : 225	R6 : 1.7 / 2 GH : 2.7 / 3.3	R6 : 2.4 GH : 3.7	20

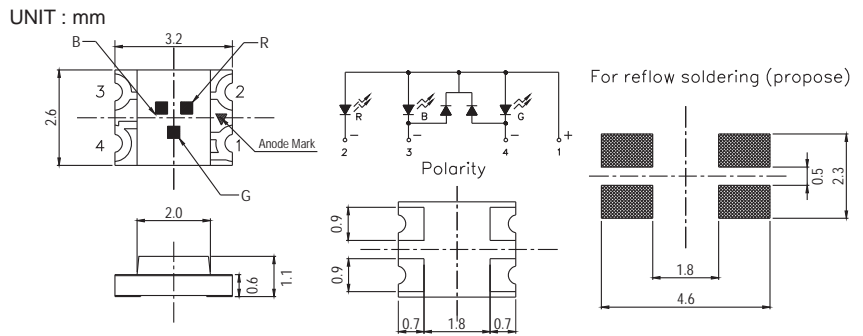


UNIT : mm

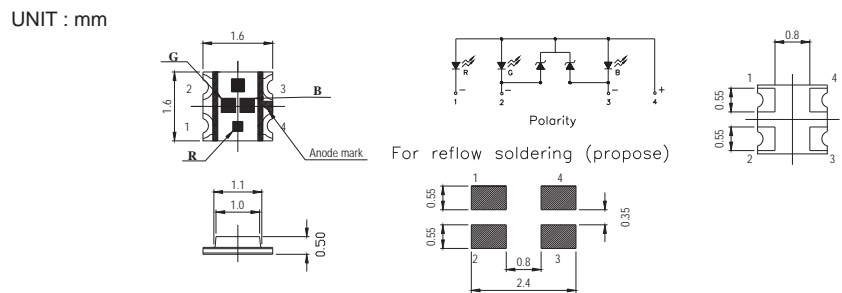


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-223/G6S2C-A01/2T	1.6x1.5x0.6	● Brilliant Yellow Green ● Brilliant Orange	G6 : 573 S2 : 605	G6 : 30 S2 : 90	G6 : 60 S2 : 180	G6 : 2 S2 : 2	G6 : 2.4 S2 : 2.4	20
19-223/R6BHC-A05/2T	1.6x1.5x0.6	● Brilliant Red ● Blue	R6 : 624 BH : 470	R6 : 72 BH : 36	R6 : 180 BH : 72	R6 : 1.7 / 2 BH : 2.7 / 3.3	R6 : 2.4 BH : 3.7	20
19-223/R6G6C-A01/2T	1.6x1.5x0.6	● Brilliant Red ● Brilliant Yellow Green	R6 : 624 G6 : 573	R6 : 72 G6 : 22.5	R6 : 180 G6 : 57	R6 : 1.7 / 2 G6 : 1.7 / 2	R6 : 2.4 G6 : 2.4	20
19-223/R7BHC-A30/2T	1.6x1.5x0.6	● Dark Red ● Blue	R7 : 631 BH : 470	R7 : 45 BH : 36	R7 : 112 BH : 90	R7 : 1.7 / 2 BH : 2.7 / 3.3	R7 : 2.4 BH : 2.7 / 3.7	20
19-223/R7G6C-A01/2T	1.6x1.5x0.6	● Dark Red ● Brilliant Yellow Green	R7 : 631 G6 : 573	R7 : 18 G6 : 18	R7 : 72 G6 : 72	R7 : 2 G6 : 2	R7 : 2.4 G6 : 2.4	20
19-223/S2BHC-A01/2T	1.6x1.5x0.6	● Brilliant Orange ● Blue	S2 : 605 BH : 470	S2 : 72 BH : 36	S2 : 140 BH : 72	S2 : 1.7 / 2 BH : 3	S2 : 2.4 BH : 3.5	20
19-223/S2T1D-C30/2T	1.6x1.5x0.6	● Brilliant Orange ○ Pure White	S2 : 605 x=0.274, y=0.226	S2 : 18 T1 : 45	S2 : 45 T1 : 112	S2 : 1.55 T1 : 2.7	S2 : 2.15 T1 : 3.3	5
19-223/Y2G6C-A01/2T	1.6x1.5x0.6	● Brilliant Yellow ● Brilliant Yellow Green	Y2 : 589 G6 : 573	Y2 : 36 G6 : 28.5	Y2 : 72 G6 : 57	Y2 : 1.7 / 2 G6 : 1.7 / 2	Y2 : 2.4 G6 : 2.4	20

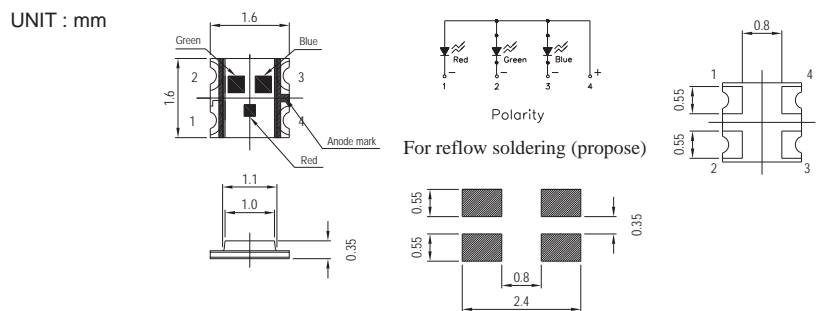
SMD LED | Surface Mount Chip LED (PCB) | Top View Full Color



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
15-13D/R6GHBHC-A01/2T	3.2x2.6x1.1	<ul style="list-style-type: none"> <li>● Brilliant Red</li> <li>● Brilliant Green</li> <li>● Blue</li> </ul>	R6 : 624 GH : 525 BH : 470	R6 : 90 / 140 GH : 112 / 180 BH : 45 / 70	--	R6 : 1.7 / 2 GH : 2.7 / 3.3 BH : 2.7 / 3.3	R6 : 2.4 GH : 3.7 BH : 3.7	20



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-137/R6GHBHC-A01/2T	1.6x1.6x0.5	<ul style="list-style-type: none"> <li>● Brilliant Red</li> <li>● Brilliant Green</li> <li>● Blue</li> </ul>	R6 : 624 GH : 525 BH : 470	R6 : 72 / 100 GH : 112 / 180 BH : 28.5 / 50	--	R6 : 1.7 / 2 GH : 2.7 / 3.3 BH : 2.7 / 3.3	R6 : 2.4 GH : 3.7 BH : 3.7	20

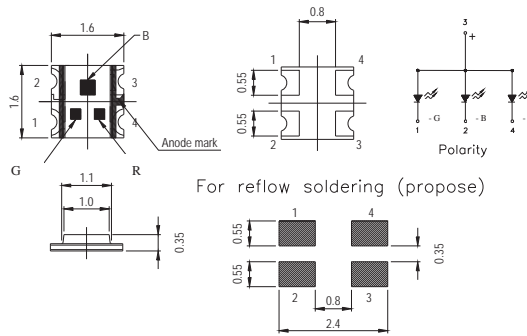


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
19-237/R6GHBHC-A04/2T	1.6x1.6x0.35	<ul style="list-style-type: none"> <li>● Brilliant Red</li> <li>● Brilliant Green</li> <li>● Blue</li> </ul>	R6 : 624 GH : 525 BH : 470	R6 : 18 / 30 GH : 28.5 / 60 BH : 11.5 / 18	--	R6 : 1.9 GH : 2.6 BH : 2.6	R6 : 2.2 GH : 3 BH : 3	20

SMD LED | Surface Mount Chip LED (PCB) | Top View Full Color



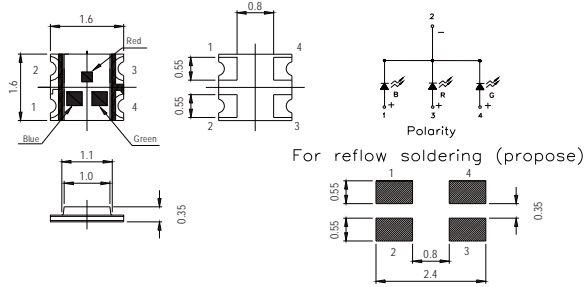
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_f$ Min./Typ. (V)	$V_f$ Max. (V)	$I_f$ (mA)
19-237A/BHR6GHC-A01/2T	1.6x1.6x0.35	<ul style="list-style-type: none"> <li>● Blue</li> <li>● Brilliant Red</li> <li>● Brilliant Green</li> </ul>	BH : 470 R6 : 624 GH : 525	BH : 28.5 / 50 R6 : 72 / 100 GH : 112 / 180	-	BH : 3.3 R6 : 2 GH : 3.3	BH : 3.9 R6 : 2.4 GH : 3.9	20



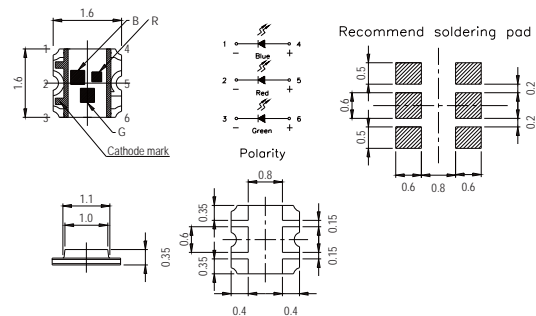
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_f$ Min./Typ. (V)	$V_f$ Max. (V)	$I_f$ (mA)
19-237B/R6GHBHC-C01/2T	1.6x1.6x0.35	<ul style="list-style-type: none"> <li>● Brilliant Red</li> <li>● Brilliant Green</li> <li>● Blue</li> </ul>	R6 : 624 GH : 525 BH : 470	R6 : 18 / 30 GH : 28.5 / 60 BH : 11.5 / 18	R6 : 57 GH : 112 BH : 28.5	R6 : 1.7 / 2 GH : 2.6 / 3 BH : 2.6 / 3	R6 : 2.2 GH : 3.3 BH : 3.3	5



UNIT : mm

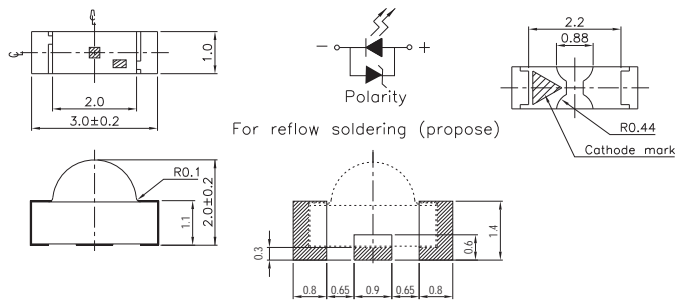


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_f$ Min./Typ. (V)	$V_f$ Max. (V)	$I_f$ (mA)
19-337/R6GHBHC-A01/2T	1.6x1.6x0.35	<ul style="list-style-type: none"> <li>● Brilliant Red</li> <li>● Brilliant Green</li> <li>● Blue</li> </ul>	R6 : 624 GH : 525 BH : 470	R6 : 72 / 100 GH : 140 / 180 BH : 36 / 50	--	R6 : 2.0 GH : 3.3 BH : 3.3	R6 : 2.4 GH : 3.9 BH : 3.9	20

SMD LED | Surface Mount Chip LED (PCB) | Side View (0.2T~1.0T)



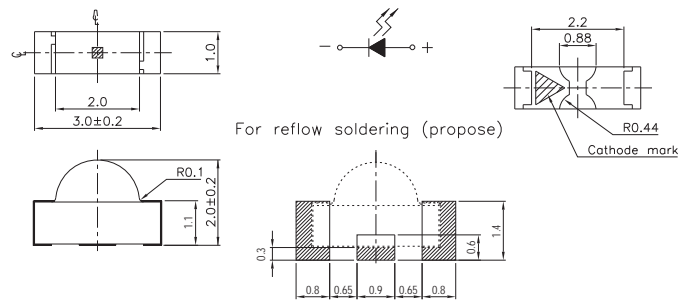
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
12-11/BHC-ZL1M2QY/2C	3x2x1	● Blue	470	11.5	28.5	2.7	3.2	5



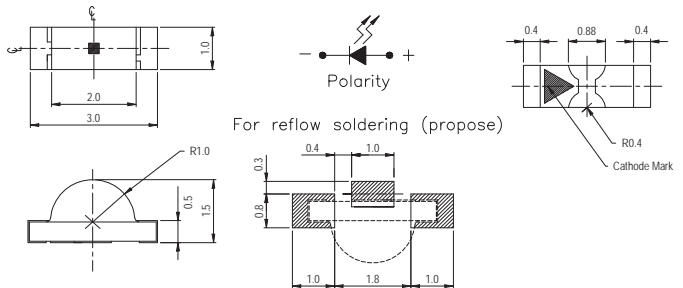
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
12-21/BHC-AN1P2/2C	3x2x1	● Blue	470	28.5	72	2.7 / 3.3	3.7	20
12-21/BHC-ZL1M2RY/2C	3x2x1	● Blue	470	11.5	28.5	2.5	3.1	5
12-21/GHC-YR2S2/2C	3x2x1	● Brilliant Green	525	140	285	3.5	4.3	20
12-21/R8C-AN1P2B/2D	3x2x1	● Deep Red	639	28.5	72	1.75	2.35	20
12-21/T3D-AQ2S2M/2C	3x2x1	○ Pure White	x=0.274, y=0.226	90	285	2.75	3.95	20



UNIT : mm

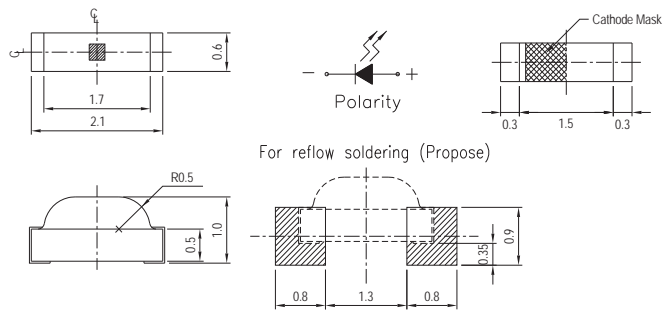


Product	Size (LxWxH mm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
12-21C/BHC-AN1P2/2C	3x1.5x1	● Blue	470	28.5	72	2.7 / 3.3	3.7	20
12-21C/BHC-YL1M2HY/2C	3x1.5x1	● Blue	470	11.5	28.5	2.7	3.15	5
12-21C/T3D-CP1Q2B12Y/2C	3x1.5x1	○ Pure White	x=0.274, y=0.226	45	112	2.7	3.4	5

SMD LED | Surface Mount Chip LED (PCB) | Side View (0.2T~1.0T)



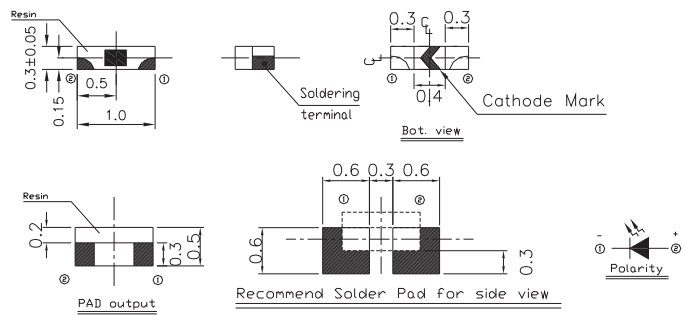
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
12-215/BHC-AN1P2/3C	2.1x1x0.6	● Blue	470	28.5	72	3.5	4	20
12-215/BHC-XL1M2HY/3C	2.1x1x0.6	● Blue	470	11.5	28.5	2.7	3.15	5
12-215/G6C-AL2M2B/3C	2.1x1x0.6	● Brilliant Yellow Green	573	14.5	28.5	1.75	2.35	20
12-215/G6C-BP1Q2L/3C	2.1x1x0.6	● Brilliant Yellow Green	573	45	112	1.7	2.3	20
12-215/R6C-AR1S1B/3C	2.1x1x0.6	● Brilliant Red	624	112	225	1.75	2.35	20
12-215/T1D-ANPHY/3C	2.1x1x0.6	○ Pure White	x=0.274, y=0.226	28.5	72	2.7	3.15	5
12-215/Y2C-BR1S1L/3C	2.1x1x0.6	● Brilliant Yellow	589	112	225	1.7	2.3	20
12-215/Y2C-CP1Q2B/3C	2.1x1x0.6	● Brilliant Yellow	589	45	112	1.75	2.35	20
12-215/Y2C-CQ1R1B/3C	2.1x1x0.6	● Brilliant Yellow	589	72	140	1.75	2.35	20

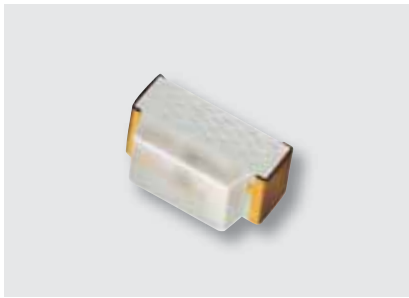


UNIT : mm

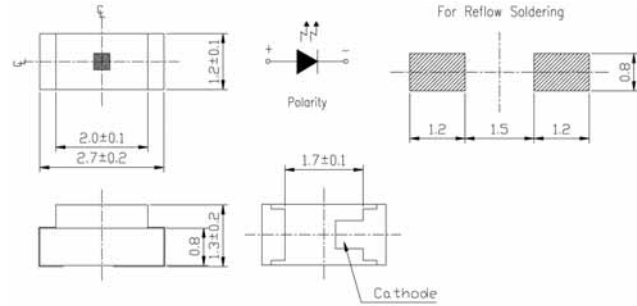


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
16-916/T1D-AP1Q2QY/3T	1x0.5x0.3	○ Pure White	x=0.274, y=0.226	45	112	2.7	3.2	5

SMD LED | Surface Mount Chip LED (PCB) | Side View (0.2T~1.0T)



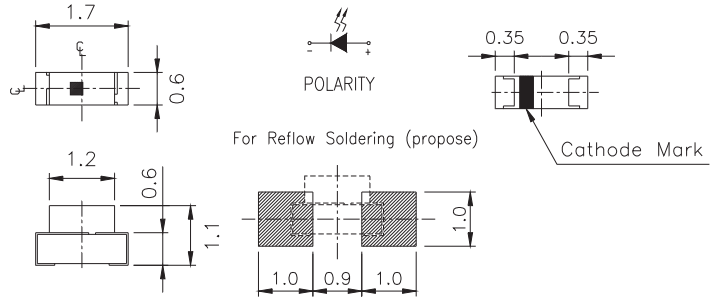
UNIT : mm



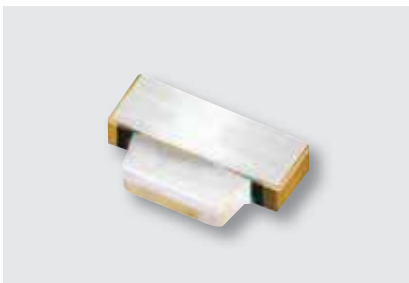
Product	Size (LxWxH mm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
22-21/BHC-AN1P2/2C	2.7x1.3x1.2	●Blue	470	28.5	72	3.8	4.5	20
22-21/GHC-YR1S2/2C	2.7x1.3x1.2	●Brilliant Green	525	112	285	2.7 / 3.3	3.7	20



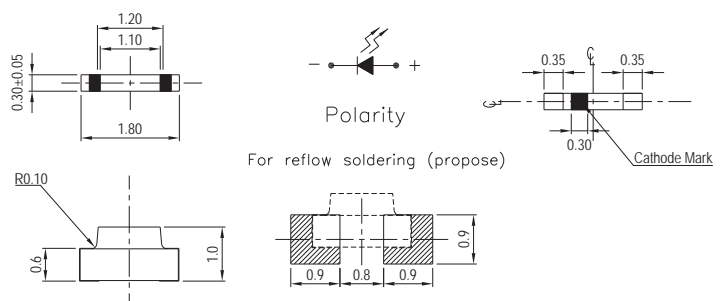
UNIT : mm



Product	Size (LxWxH mm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
27-21/BHC-AN1P2/3C	1.7x1.1x0.6	●Blue	470	28.5	72	2.7 / 3.3	3.7	20
27-21/BHC-AP1Q2/3C	1.7x1.1x0.6	●Blue	470	45	112	2.7 / 3.3	3.7	20
27-21/GHC-YR1S2M/3C	1.7x1.1x0.6	●Brilliant Green	525	112	285	2.75	3.95	20
27-21/R6C-AP1Q2B/3C	1.7x1.1x0.6	●Brilliant Red	624	45	112	1.75	2.35	20
27-21/T1D-ANPHY/3C	1.7x1.1x0.6	○Pure White	x=0.274, y=0.226	28.5	72	2.7	3.15	5
27-21/T1D-CQ1R2NW/3C	1.7x1.1x0.6	○Pure White	x=0.274, y=0.226	72	180	2.7	3.7	15
27-21/T3D-AP2Q2HY/3C	1.7x1.1x0.6	○Pure White	x=0.274, y=0.226	57	112	2.7	3.15	5
27-21/Y2C-CPQB/3D	1.7x1.1x0.6	●Brilliant Yellow	589	45	112	1.75	2.35	20



UNIT : mm

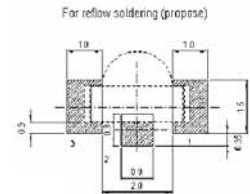
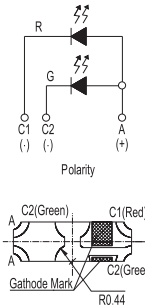
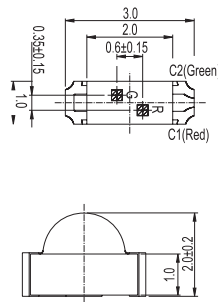


Product	Size (LxWxH mm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
48-213/BHC-ZM2P1QY/3C	1.8x1.0x0.3	●Blue	470	22.5	57	2.7	3.2	5
48-213/R6C-AM1N2VY/3C	1.8x1.0x0.3	●Brilliant Red	624	18	45	1.7	2.2	5
48-213/T2D-AQ2R2QY/3C	1.8x1.0x0.3	○Pure White	x=0.274, y=0.226	90	180	2.7	3.2	5
48-213/T3D-AP1Q2TY/3C	1.8x1.0x0.3	○Pure White	x=0.274, y=0.226	45	112	2.6	3	5
48-213/T7D-AQ1R2QY/3C	1.8x1.0x0.3	○Pure White	x=0.274, y=0.226	72	180	2.7	3.2	5

SMD LED | Surface Mount Chip LED (PCB) | Side View Bi-Color



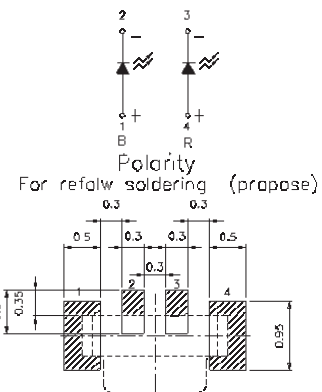
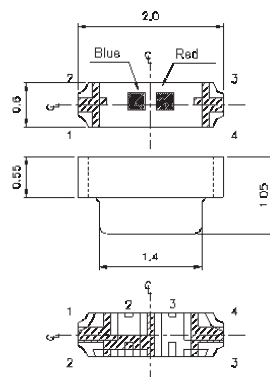
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
12-22/BHR6C-A01/2C	3.0x2.0x1.0	● Blue ● Brilliant Red	BH : 470 R6 : 624	BH : 18 / 28 R6 : 22.5 / 30	--	BH : 2.7 R6 : 1.7	BH : 3.1 R6 : 2.2	20
12-22/G6R8C-A30/2C	3.0x2.0x1.0	● Brilliant Yellow Green ● Deep Red	G6 : 573 R8 : 639	G6 : 28.5 R8 : 28.5	G6 : 72 R8 : 72	G6 : 1.7 / 2 R8 : 1.7 / 2	G6 : 2.4 R8 : 2.4	20
12-22/R6GHC-A30/2C	3.0x2.0x1.0	● Brilliant Red ● Brilliant Green	R6 : 624 GH : 525	R6 : 72 GH : 112	R6 : 180 GH : 285	R6 : 1.7 / 2 GH : 2.7 / 3.3	R6 : 2.4 GH : 3.7	20
12-22/Y2G6C-A30/2C	3.0x2.0x1.0	● Brilliant Yellow ● Brilliant Yellow Green	Y2 : 589 G6 : 573	Y2 : 45 G6 : 28.5	Y2 : 112 G6 : 72	Y2 : 1.7 / 2 G6 : 1.7 / 2	Y2 : 2.4 G6 : 2.4	20



UNIT : mm



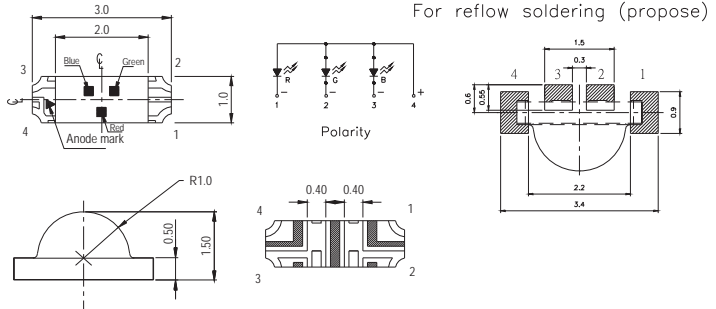
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
17-223/BHR7C-C30/3C	2.0x1.05x0.6	● Blue ● Dark Red	BH : 470 R7 : 631	BH : 22.5 R7 : 14.5	BH : 57 R7 : 36	BH : 2.7 R7 : 1.55	BH : 3.2 R7 : 2.15	5



SMD LED | Surface Mount Chip LED (PCB) | Side View Full Color



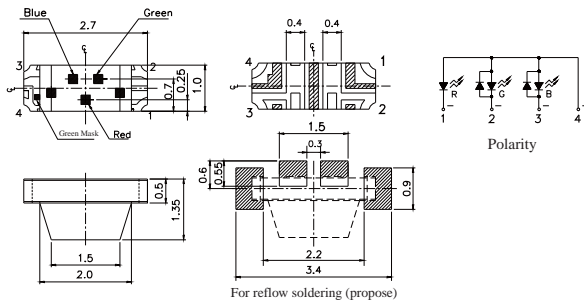
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
12-23C/R6GHBHC-A01/2C	3.0x1.5x1.0	● Brilliant Red	R6 : 624	R6 : 63 / 90	--	R6 : 2	R6 : 2.4	20
		● Brilliant Green	GH : 525	GH : 125 / 180		GH : 3.3	GH : 3.9	
		● Blue	BH : 470	BH : 32 / 50		BH : 3.3	BH : 3.9	
12-23C/S2GHBHC-A01/2C	3.0x1.5x1.0	● Brilliant Orange	BH : 470	BH : 36 / 65	--	BH : 3.3	BH : 3.9	20
		● Brilliant Green	GH : 525	GH : 140 / 210		GH : 3.3	GH : 3.9	
		● Blue	S2 : 605	S2 : 72 / 140		S2 : 2	S2 : 2.4	



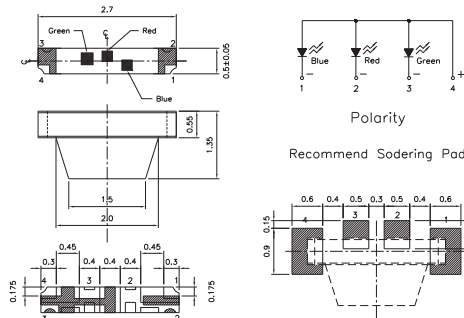
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
22-23/R6GHBHC-A01/2C	2.7x1.35x1.0	● Brilliant Red	R6 : 624	R6 : 45 / 180	--	R6 : 1.7 / 2	R6 : 2.4	20
		● Brilliant Green	GH : 525	GH : 112 / 450		GH : 2.7 / 3.3	GH : 3.7	
		● Blue	BH : 470	BH : 28.5 / 112		BH : 2.7 / 3.3	BH : 3.7	



UNIT : mm

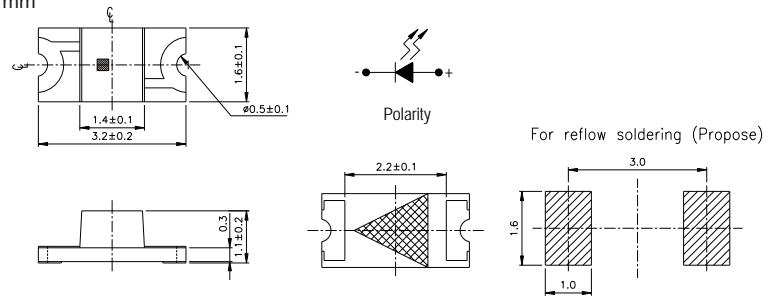


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
22-23C/R6GHBHW-C01/2C	2.7x1.35x0.5	● Brilliant Red	R6 : 624	R6 : 14.5	R6 : 36	R6 : 1.7 / 1.85	R6 : 2	5
		● Brilliant Green	GH : 525	GH : 35	GH : 110	GH : 2.7 / 2.9	GH : 3.2	
		● Blue	BH : 470	BH : 10	BH : 24.5	BH : 2.7 / 2.9	BH : 3.1	

SMD LED | Surface Mount Chip LED (PCB) | Reverse Mount



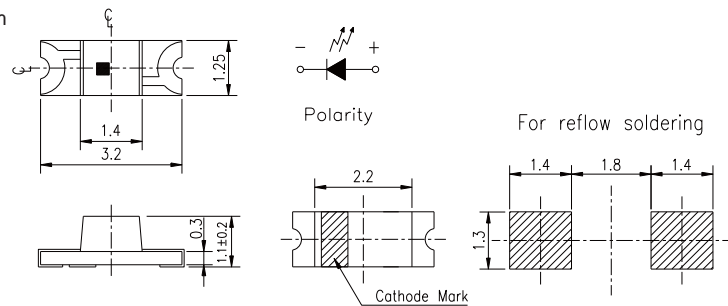
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
23-21/G6C-AL2N1/2T	3.2x1.6x1.1	● Brilliant Yellow Green	573	14.5	36	1.7 / 2	2.4	20
23-21/GHC-YR2T1/2A	3.2x1.6x1.1	● Brilliant Green	525	140	360	3.5	3.9	20
23-21/R6C-AM1N2AY/2A	3.2x1.6x1.1	● Brilliant Red	624	18	45	1.55	2.15	5
23-21/R8C-AN2Q1B/2T	3.2x1.6x1.1	● Deep Red	639	36	90	1.75	2.35	20



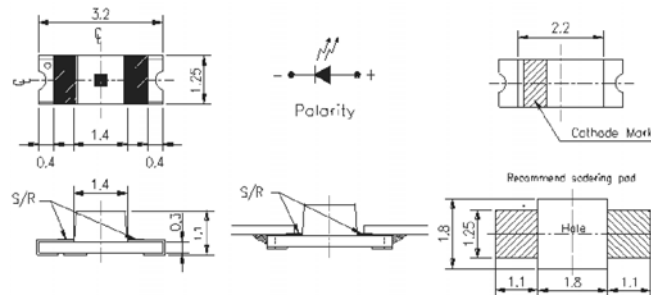
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
23-21B/BHC-AN1P2/2A	3.2x1.25x1.1	● Blue	470	28.5	72	3.5	4	20
23-21B/BHC-ZM1N2TY/2A	3.2x1.25x1.1	● Blue	470	18	45	2.6	3	5
23-21B/G6C-AM2P1/2A	3.2x1.25x1.1	● Brilliant Yellow Green	573	22.5	57	1.7 / 2	2.4	20
23-21B/S2C-AP1Q2B/2A	3.2x1.25x1.1	● Brilliant Orange	605	45	112	1.75	2.35	20
23-21B/T1D-ANQHY/2A	3.2x1.25x1.1	○ Pure White	x=0.274, y=0.226	28.5	112	2.7	3.15	5
23-21B/T1D-CP2Q2TY/2A	3.2x1.25x1.1	○ Pure White	x=0.274, y=0.226	57	112	2.6	3	5
23-21B/W1D-ANQHY/2A	3.2x1.25x1.1	○ Pure White	x=0.274, y=0.226	28.5	112	2.7	3.15	5

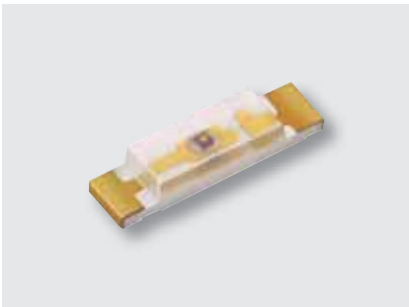


UNIT : mm

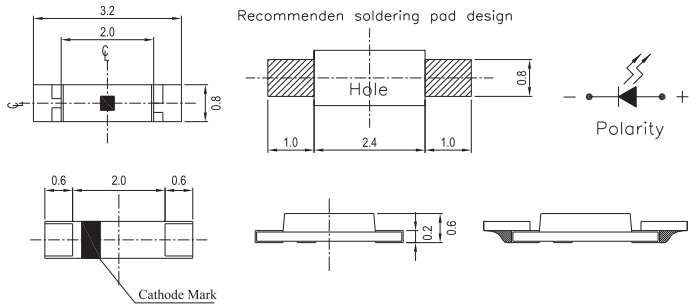


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
23-21C/T1D-CP2Q2TY/2A	3.2x1.25x1.1	○ White	x=0.274, y=0.226	57	112	Min. 2.6	3	5

SMD LED | Surface Mount Chip LED (PCB) | Reverse Mount



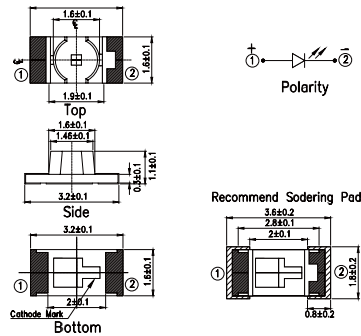
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
23-215A/BHC-DN2P2E/5A	3.2x0.8x0.6	●Blue	470	36	72	2.75	3.65	20



UNIT : mm

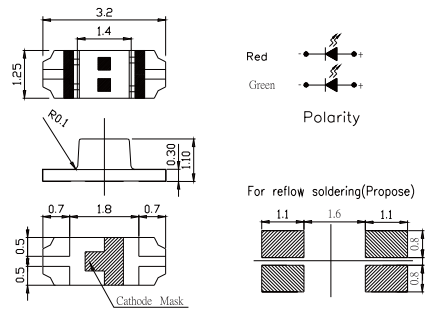


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
24-21/BHC-AN1P2/2A	3.2x1.6x1.1	●Blue	470	28.5	72	2.7/3.3	3.7	20
24-21/GHC-YR2T1/2A	3.2x1.6x1.1	●Brilliant Green	525	140	360	3.5	4	20

SMD LED | Surface Mount Chip LED (PCB) | Reverse Mount Bi-color



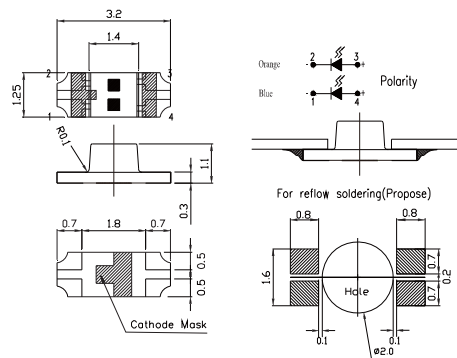
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
23-22B/R7G6C-A30/2T	3.2x1.25x1.1	<ul style="list-style-type: none"> <li>● Dark Red</li> <li>● Brilliant Yellow Green</li> </ul>	R7 : 631 G6 : 573	R7 : 18 G6 : 14.5	R7 : 72 G6 : 45	R7 : 1.7 / 2 G6 : 1.7 / 2	R7 : 2.4 G6 : 2.4	20
23-22B/S2BHC-C30/2A	3.2x1.25x1.1	<ul style="list-style-type: none"> <li>● Brilliant Orange</li> <li>● Blue</li> </ul>	S2 : 605 BH : 470	S2 : 11.5 BH : 11.5	S2 : 28.5 BH : 28.5	S2 : 1.55 / 1.85 BH : 2.5 / 3.1	S2 : 2.25 BH : 3.5	5



UNIT : mm

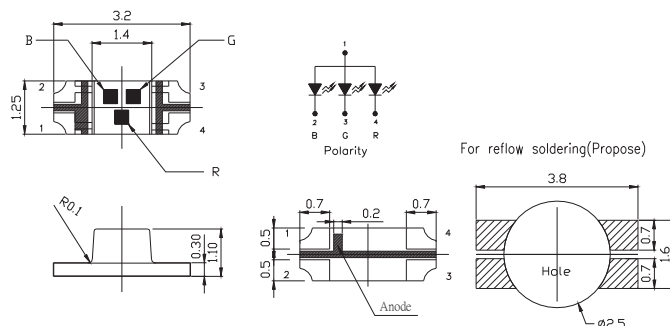


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
23-22C/S2BHC-B30/2A	3.2x1.25x1.1	<ul style="list-style-type: none"> <li>● Brilliant Orange</li> <li>● Blue</li> </ul>	S2 : 605 BH : 470	S2 : 22.5 BH : 22.5	S2 : 57 BH : 57	S2 : 1.7 / 2 BH : 2.7 / 3.3	S2 : 2.4 BH : 3.7	10

SMD LED | Surface Mount Chip LED (PCB) | Reverse Mount Full color



UNIT : mm

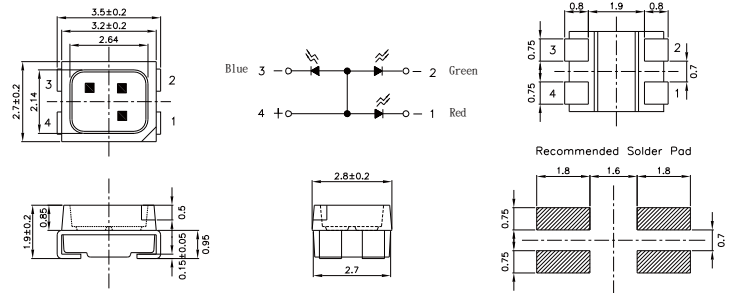


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
23-23B/R6GHHC-A01/2A	3.2x1.25x1.1	<ul style="list-style-type: none"> <li>● Brilliant Red</li> <li>● Brilliant Green</li> <li>● Blue</li> </ul>	R6 : 624 GH : 525 BH : 470	R6 : 72 / 100 GH : 140 / 200 BH : 45 / 65	--	R6 : 1.7 / 2 GH : 2.7 / 3.3 BH : 2.7 / 3.3	R6 : 2.4 GH : 3.7 BH : 3.7	20

SMD LED | Surface Mount PLCC LEDs (Reflector) | Top View LED



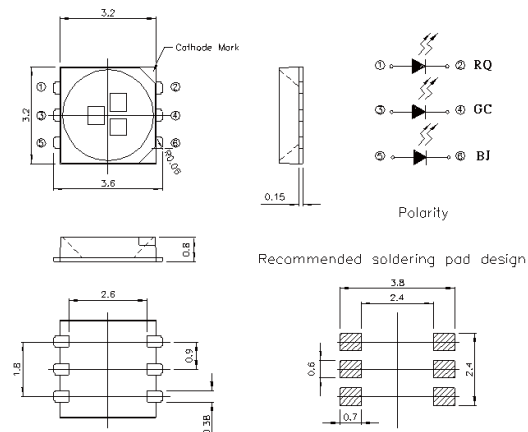
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
67-23/R6GHBHC-B05/2T	3.5x2.8x1.9	R6: ● Brilliant Red GH: ● Brilliant Green BH: ● Blue	R6 : 621~631 GH : 520~530 BH : 465~475	R6 : 112 GH : 180 BH : 72	R6 : 285 GH : 715 BH : 285	R6 : 2.0 GH : 3.4 BH : 3.4	R6 : 2.4 GH : 3.95 BH : 3.95	20
67-23SDRSYGUBC/TR8	3.5x2.8x1.9	SDR: ● Deep Red SYG: ● Brilliant Yellow Green UB: ● Blue	SDR : 639 SYG : 573 UB : 470	SDR : 63 / 112 SYG : 13 / 20 UB : 11 / 18	--	SDR : 2.0 SYG : 2.0 UB : 3.5	SDR : 2.4 SYG : 2.4 UB : 4.0	20

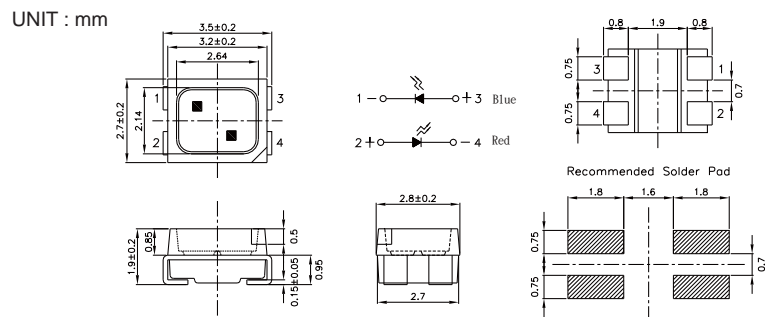


UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
67-235-BJRQGCC-A01E-2T8-CS	3.2x3.2x0.8	● BQ:Super-Red ● GC:Brilliant Green ● BJ:Blue	BQ:617.5-629.5 GC:525-535 BJ:465-475	BQ:450 GC:1120 BJ:225	BQ:900 GC:1800 BJ:450	BQ:1.75 GC:2.75 BJ:2.75	BQ:2.75 GC:3.65 BJ:3.65	20

SMD LED | Surface Mount PLCC LEDs (Reflector) | Top View Bi-Color

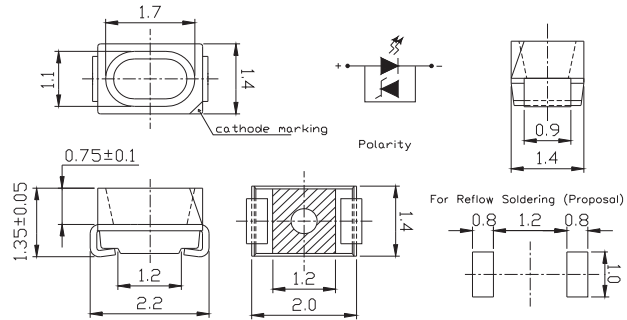


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
67-22/G3G3C-B45/2T	3.5x2.8x1.9	G3: ● Pale Green G3: ● Pale Green	563.5~571.5	4.5 / 10	36	1.7 / 2.0	2.4	10
67-22/R6BHC-B07/2T	3.5x2.8x1.9	R6: ● Brilliant Red BH: ● Blue	R6 : 621~631 BH : 466.5~471.5	R6 : 90 BH : 90	R6 : 225 BH : 225	R6 : 1.75 BH : 2.9	R6 : 2.35 BH : 3.7	20
67-22/R6G6C-B09/2T	3.5x2.8x1.9	R6: ● Brilliant Red G6: ● Brilliant Yellow Green	R6 : 621~627 G6 : 570~574	R6 : 57 G6 : 36	R6 : 140 G6 : 90	R6 : 1.75 G6 : 1.75	R6 : 2.35 G6 : 2.35	20
67-22/R6Y2C-B31/2T	3.5x2.8x1.9	R6: ● Brilliant Red Y2: ● Brilliant Yellow	R6 : 621~631 Y2 : 586~594	R6 : 72 Y2 : 72	R6 : 285 Y2 : 285	1.75	2.35	20
67-22SURSYGC/S530-A2/TR8	3.5x2.8x1.9	SUR: ● Brilliant Red SYG: ● Brilliant Yellow Green	SUR : 624 SYG : 573	SUR : 24 / 59 SYG : 16 / 24	--	SUR : 1.7 / 2.0 SYG : 1.7 / 2.0	SUR : 2.4 SYG : 2.4	20
67-22UYSYGC/S530-A5/TR8	3.5x2.8x1.9	UY: ● Brilliant Yellow SYG: ● Brilliant Yellow Green	UY : 589 SYG : 573	UY : 80 / 120 SYG : 50 / 80	--	UY : 1.7/2.0 SYG : 1.7/2.0	UY : 2.4 SYG : 2.4	20

SMD LED | Surface Mount PLCC LEDs (Reflector) | Top View PLCC2



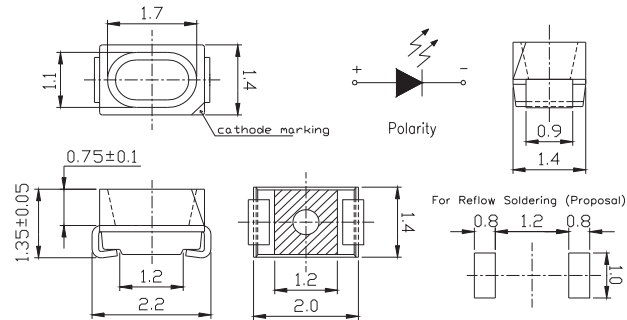
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_V$ Min./Typ. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
65-11/BHC-AR1S2B2/2T	2.2x1.4x1.35	● Blue	464.5~476.5	112	285	2.9	3.6	20
65-11/T2C-FV1W2E/2T	2.2x1.4x1.35	○ Pure White	x=0.283~0.33 y=0.276~0.36	715	1800	2.75	3.65	20



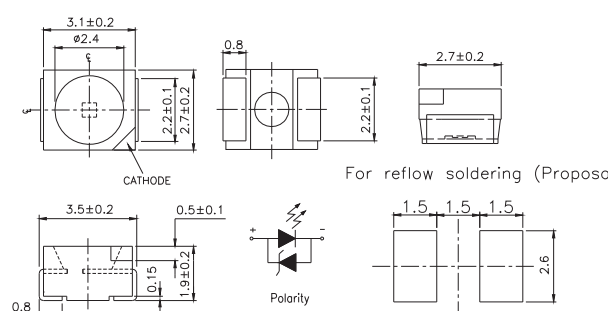
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_V$ Min./Typ. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
65-21/G6C-AN2Q1/3T	2.2x1.4x1.35	● Brilliant Yellow Green	569.5~577.5	36	90	1.75	2.35	20
65-21/Y2C-CJ2L2X/3T	2.2x1.4x1.35	● Brilliant Yellow	586~592	5.8	18	2	2.4	2
65-21/Y2SC-AR1S2B/2T	2.2x1.4x1.35	● Brilliant Yellow	585.5~594.5	112	285	1.75	2.35	20
65-21/Y2SC-FR2S1B/2T	2.2x1.4x1.35	● Brilliant Yellow	586~594	140	225	1.75	2.35	20



UNIT : mm



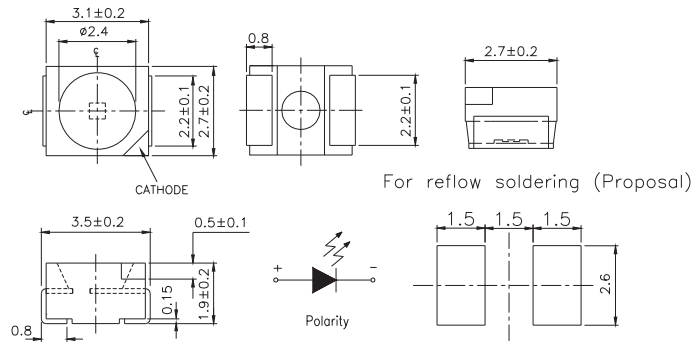
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_V$ Min./Typ. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
67-11/BHC-FQ2S1F/2T	3.5x2.7x1.9	● Blue	464~472	90	285	2.7	3.5	20
67-11/W1C-ES1T2N/2T	3.5x2.7x1.9	○ Warm White	x=0.264~0.330 y=0.248~0.360	180	450	2.7	3.7	20
67-11/W1C-FV1W2F/2T	3.5x2.7x1.9	○ White	x=0.283~0.330 y=0.276~0.360	715	1800	2.7	3.5	20

SMD LED

SMD LED | Surface Mount PLCC LEDs (Reflector) | Top View PLCC2



UNIT : mm



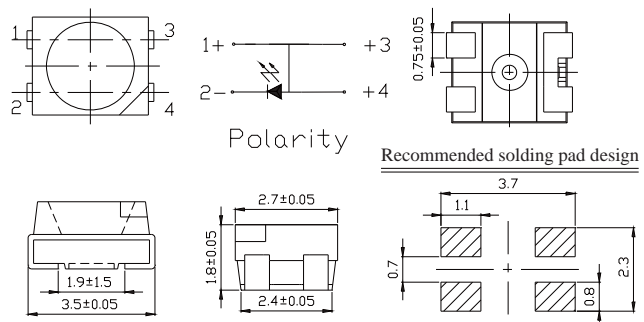
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
67-21/B3C-BN1Q2N/2T	3.5x2.7x1.9	Blue	464.5~473.5	28.5	112	2.7	3.7	20
67-21/B7C-AS2U1N/2T	3.5x2.7x1.9	Blue	464.5~476.5	225	565	2.7	3.7	20
67-21/GBC-YV2W2N/2T	3.5x2.7x1.9	Brilliant Green	520~535	900	1800	2.7	3.7	20
67-21/GHC-AS2U1B17Z/2T	3.5x2.7x1.9	Brilliant Green	517.5~535.5	225	565	2.5	3.5	10
67-21/GHC-BV1/2T	3.5x2.7x1.9	Brilliant Green	523.5~533.5	715	900	2.7	4.3	20
67-21/R6C-AP2R1B/2T	3.5x2.7x1.9	Brilliant Red	617.5~633.5	57	140	1.75	2.35	20
67-21/R6C-FN2Q1BZ/2T	3.5x2.7x1.9	Brilliant Red	621~631	36	90	1.75	2.35	10
67-21/R6C-FR2T1B/2T	3.5x2.7x1.9	Brilliant Red	621~631	140	360	1.75	2.35	20
67-21/R6C-FS1U1B/2T	3.5x2.7x1.9	Brilliant Red	621~631	180	565	1.75	2.35	20
67-21/RSC-FT2V1B/2T	3.5x2.7x1.9	Brilliant Red	621~631	360	900	1.75	2.35	20
67-21/S2C-FQ2R2B/2T	3.5x2.7x1.9	Brilliant Orange	603~609	90	180	1.75 / 2	2.35	20
67-21/S3C-AS1T1/2T	3.5x2.7x1.9	Reddish Orange	605.5~621.5	180	360	2	2.4	20
67-21/T2C-ZV1W2E/2T	3.5x2.7x1.9	White	x=0.2498~0.296 y=0.2185~0.2950	715	1800	2.75	3.65	20
67-21/Y2C-BR2T1B/2T	3.5x2.7x1.9	Brilliant Yellow	588.5~594.5	140	360	1.75	2.35	20
67-21/YSC-FU1V2B/2T	3.5x2.7x1.9	Brilliant Yellow	586~594	450	1120	1.75	2.35	20

SMD LED

SMD LED | Surface Mount PLCC LEDs (Reflector) | Top View PLCC3



UNIT : mm



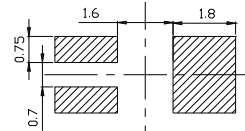
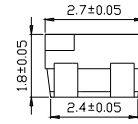
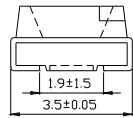
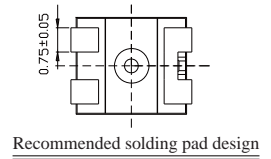
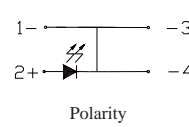
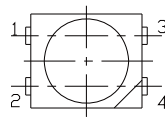
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
67-31A/B7C-AT1U2MZ3/2T	3.5x2.7x1.8	Blue	464.5~476.5	285	715	2.75	3.95	30
67-31A/GHC-YV1W2EZ3/2T	3.5x2.7x1.8	Green	520~535	715	1800	2.75	3.65	30
67-31A/SAC-AW1X2B9Z5/2T	3.5x2.7x1.8	Reddish Orange	605.5~625.5	1120	2850	1.95	2.75	50



SMD LED | Surface Mount PLCC LEDs (Reflector) | Top View PLCC3



UNIT : mm

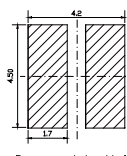
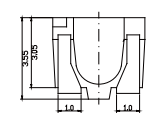
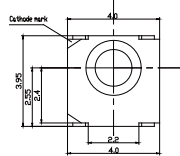
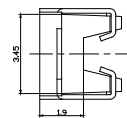
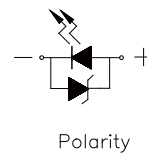
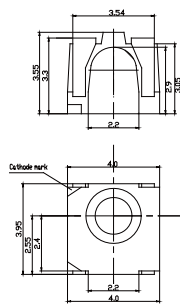


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
67-31E/RSC-AV1W2B9Z5/2T	3.5x2.7x1.8	● Brilliant Red	617.5~633.5	715	1800	2.15	2.75	50

SMD LED | Surface Mount PLCC LEDs (Reflector) | Side View LED



UNIT : mm

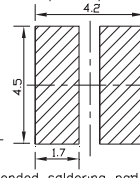
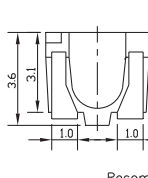
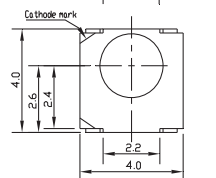
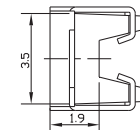
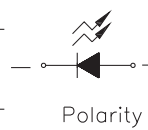
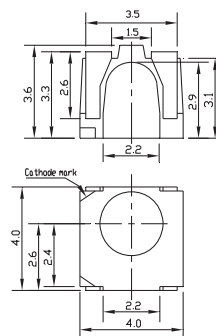


Recommended soldering pad design

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)
57-11UTC/S827-1/TR8	4.0x4.0x3.6	○ White	x=0.3070~0.3520 y=0.2840~0.3710	900	1800	2.75	3.95



UNIT : mm

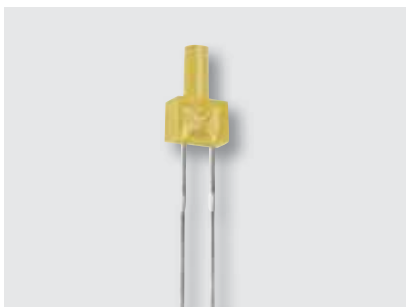


Recommended soldering pad design

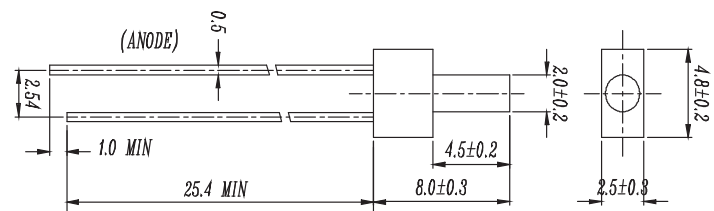
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(x,y)	$I_v$ Min./Typ. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min./Typ. (V)	$V_F$ Max. (V)	$I_F$ (mA)
57-21/R6C-AP1Q2B/BF	4.0x4.0x3.6	● Brilliant Red	617.5~633.5	45	112	1.75	2.35	10
57-21SYGC/S530-E3/TR8	4.0x4.0x3.6	● Brilliant Yellow Green	573	32/51	--	1.7 / 2.0	2.4	20

SMD LED

### LED Lamps | 2mm Tower Type



UNIT : mm

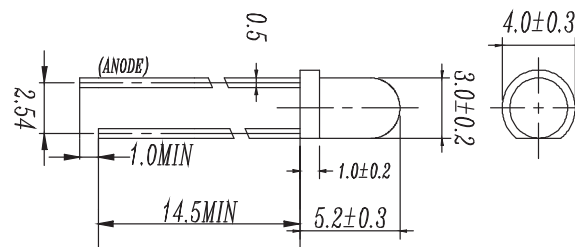


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm) / CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
103SURD/S530-A3	2	● Hyper Red	Tower	624	Red Diffused	25 / 40	2.0 / 2.4	130
103SYGD/S530-E2	2	● Brilliant Yellow Green	Tower	573	Green Diffused	6.3 / 12.5	2.0 / 2.4	130
103UYD/S530-A3	2	● Brilliant Yellow	Tower	589	Yellow Diffused	25 / 50	2.0 / 2.4	130

### LED Lamps | 3mm Round Type

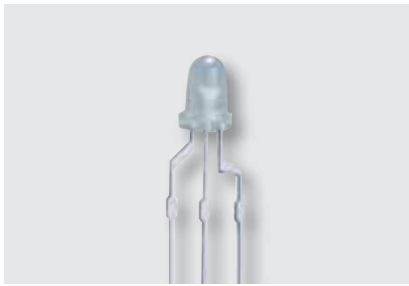


UNIT : mm

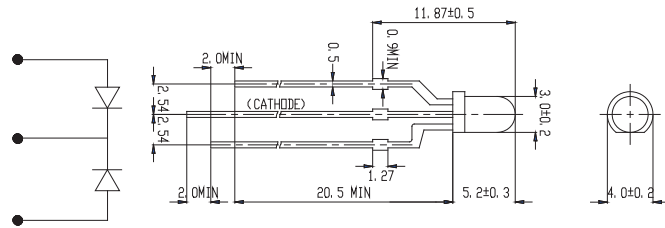


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm) / CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
204-10SDRD/S530-A3	3	● Deep Red	Round	639	Red Diffused	40 / 80	2.0 / 2.4	50
204-10SUBC/S400-A4	3	● Blue	Round	470	Water Clear	400 / 800	3.4 / 4.0	20
204-10SUGC/S400-A5	3	● Green	Round	525	Water Clear	1600 / 3200	3.2 / 3.7	30
204-10SURD/S530-A3	3	● Brilliant Red	Round	624	Red Diffused	40 / 80	2.0 / 2.4	45
204-10SYGD/S530-E3	3	● Brilliant Yellow Green	Round	573	Green Diffused	63 / 100	2.0 / 2.4	45
204-10UYD/S530-A3	3	● Brilliant Yellow	Round	589	Yellow Diffused	100 / 200	2.0 / 2.4	60
204-10UYOC/S530-A3	3	● Brilliant Orange	Round	605	Water Clear	320 / 500	2.0 / 2.4	30

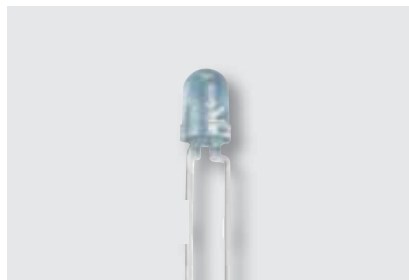
LED Lamps | 3mm Round Type



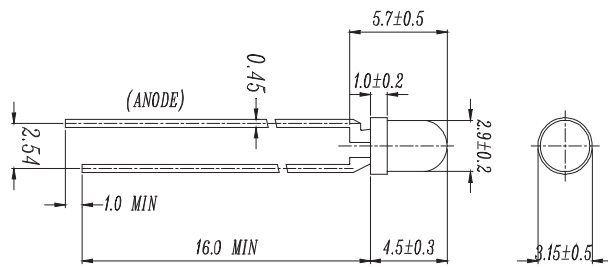
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm) / CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
209SDRSYGW/S530-A3	3	<ul style="list-style-type: none"> <li>● Deep Red</li> <li>● Brilliant Yellow Green</li> </ul>	Round	639 / 573	White Diffused	25 / 50 16 / 32	2.0 / 2.4 2.0 / 2.4	80
209SURSYGW/S530-A3	3	<ul style="list-style-type: none"> <li>● Brilliant Red</li> <li>● Brilliant Yellow Green</li> </ul>	Round	624 / 573	White Diffused	40 / 80 25 / 50	2.0 / 2.4 2.0 / 2.4	80



UNIT : mm

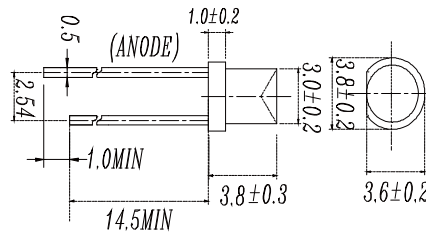


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm) / CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
264-7SDRC/S530-A3	2.9	● Deep Red	Round	639	Water Clear	40 / 100	2.0 / 2.4	40
264-7UYOC/S530-A3	2.9	● Brilliant Orange	Round	605	Water Clear	110 / 200	2.0 / 2.4	40
264-7SUGC/S400-A5	2.9	● Brilliant Green	Round	530	Water Clear	1000 / 2000	3.4 / 4.0	30
264-7SURC/S400-A8	2.9	● Brilliant Red	Round	624	Water Clear	400 / 800	2.0 / 2.4	40
264-7SYGC/S530-E3	2.9	● Brilliant Yellow Green	Round	573	Water Clear	100 / 320	2.0 / 2.4	35
264-7UYC/S400-A9	2.9	● Brilliant Yellow	Round	589	Water Clear	630 / 1250	2.0 / 2.4	40

LED Lamps | 3mm Round Type



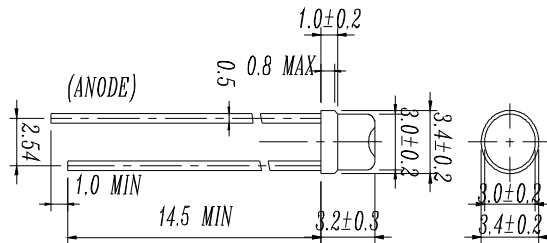
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm) / CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
484-10SURT/S530-A3	3	● Brilliant Red	Round	624	Red Trans	10 / 20	2.0 / 2.4	130
484-10UYT/S530-A3	3	● Brilliant Yellow	Round	589	Yellow Trans	16 / 32	2.0 / 2.4	110
484-10SYGT/S530-E2	3	● Brilliant Yellow Green	Round	573	Green Trans	6.3 / 12.5	2.0 / 2.4	80
484-10UYOC/S530-A3	3	● Brilliant Orange	Round	605	Water Clear	40 / 80	2.0 / 2.4	160



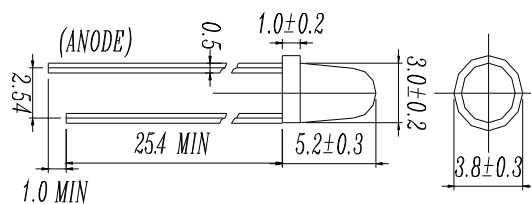
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/ CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
494-10SURT/S530-A3	3	● Brilliant Red	Round	624	Red Trans	16 / 32	2.0 / 2.4	100
494-10SYGT/S530-E2	3	● Brilliant Yellow Green	Round	573	Green Trans	10 / 20	2.0 / 2.4	100



UNIT : mm

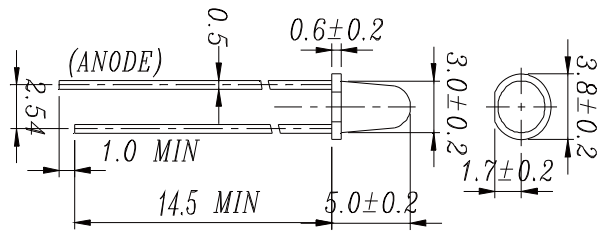


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
1224SYGC/S530-E2	3	● Brilliant Yellow Green	Round	573	Water Clear	63 / 100	2.0 / 2.4	25
1224USOC/S530-A3	3	● Super Sunset Orange	Round	615	Water Clear	188 / 295	2.0 / 2.4	25
1224UTC/S400-A6	3	○ White	Round	x=0.29, y=0.28	Water Clear	1800 / -	- / 4.0	25
1224SURC/S530-A3	3	● Brilliant Red	Round	624	Water Clear	160 / 400	2.0 / 2.4	25
1224SDRC/S530-A4	3	● Super Deep Red	Round	639	Water Clear	250 / 500	2.0 / 2.4	25
1224SUGC/S400-A5	3	● Green	Round	525	Water Clear	1600 / 2000	3.3 / 3.7	30

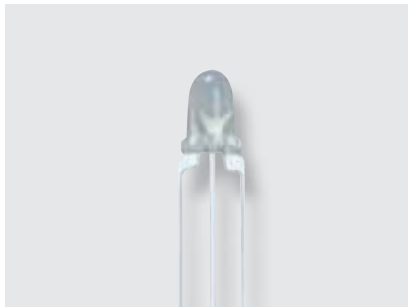
LED Lamps | 3mm Round Type



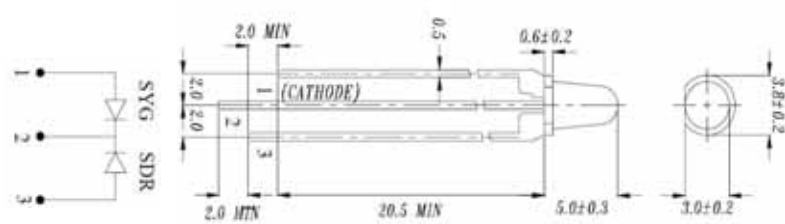
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm) / CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
1254-10SDRT/S530-A3	3	● Deep Red	Round	639	Red Trans	160 / 320	2.0 / 2.4	30
1254-10SURT/S530-A3	3	● Hyper Red	Round	624	Red Trans	160 / 320	2.0 / 2.4	30
1254-10SYGT/S530-E2	3	● Brilliant Yellow Green	Round	573	Green Trans	160 / 320	2.0 / 2.4	30
1254-10UYD/S530-A3	3	● Brilliant Yellow	Round	589	Yellow Diffused	100 / 200	2.0 / 2.4	30
1254-10UYOT/S530-A3	3	● Brilliant Orange	Round	605	Orange Color	250 / 500	2.0 / 2.4	30



UNIT : mm

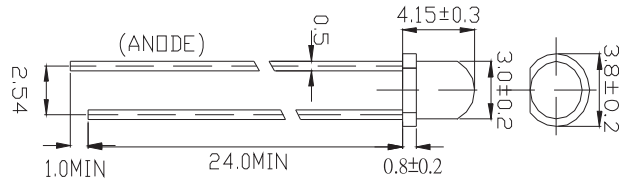


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
1259-7SDRSYGW/S530-A3	3	● Deep Red ● Brilliant Yellow Green	Round	639 / 573	White Diffused	16 / 32 25 / 50	2.0 / 2.4 2.0 / 2.4	50
1259-7SURSYGW/S530-A3	3	● Brilliant Red ● Brilliant Yellow Green	Round	624 / 573	White Diffused	40 / 80 16 / 32	2.0 / 2.4 2.0 / 2.4	60
1259-7UYSYGW/S530-A3	3	● Brilliant Yellow ● Brilliant Yellow Green	Round	589 / 573	White Diffused	63 / 125 40 / 80	2.0 / 2.4 2.0 / 2.4	40

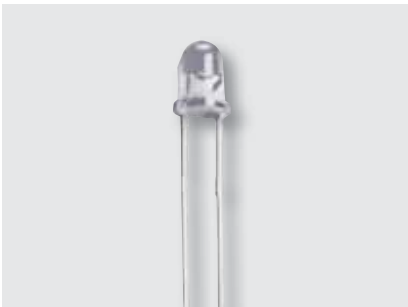
LED Lamps | 3mm Round Type



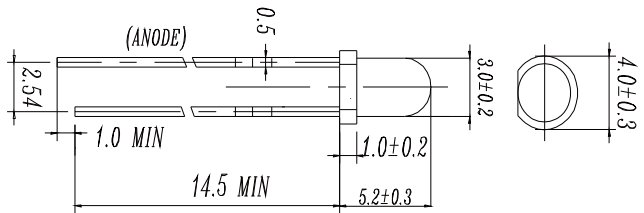
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/ CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
3294-15SUBC/S400-A6	3	● Blue	Round	470	Water Clear	160 / 320	3.3 / 3.7	90
3294-15SUGC/S400-A6	3	● Brilliant Green	Round	525	Water Clear	500 / 1250	3.3 / 3.7	50
3294-15SURC/S400-A7	3	● Brilliant Red	Round	624	Water Clear	100 / 200	2.0 / 2.4	90
3294-15UBGC/S400-A6	3	● Super Blue	Round	505	Water Clear	400 / 800	3.5 / 4.3	90



UNIT : mm

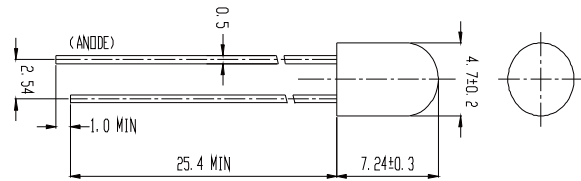


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/ CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
4204-10SYGC/S530-E4	3	● Brilliant Yellow Green	Round	573	Water Clear	250 / 500	2.0 / 2.4	20
4204-10SURC/S530-A3	3	● Brilliant Red	Round	624	Water Clear	320 / 500	2.0 / 2.4	25

LED Lamps | 5mm Round Type



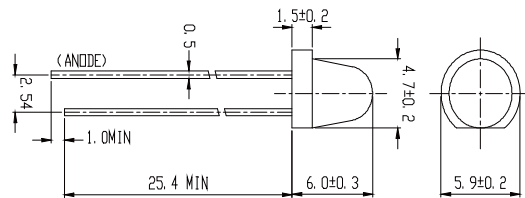
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
313-2SYGC/S530-E2	4.7	● Brilliant Yellow Green	Round	573	Water Clear	250 / 500	2.0 / 2.4	20
313-2UYD/S530-A3	4.7	● Brilliant Yellow	Round	589	Yellow Diffused	100 / 200	2.0 / 2.4	50
313-2SUBC/C470/S400-A4	4.7	● Blue	Round	470	Water Clear	630 / 1000	3.4 / 4.0	20



UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
323-2SURD/S530-A3	4.7	● Brilliant Red	Round	624	Red Diffused	63 / 100	2.0 / 2.4	40
323-2SYGD/S530-E2	4.7	● Brilliant Yellow Green	Round	573	Green Diffused	40 / 80	2.0 / 2.4	60
323-2SDRD/S530-A3	4.7	● Deep Red	Round	639	Red Diffused	25 / 50	2.0 / 2.4	60



UNIT : mm

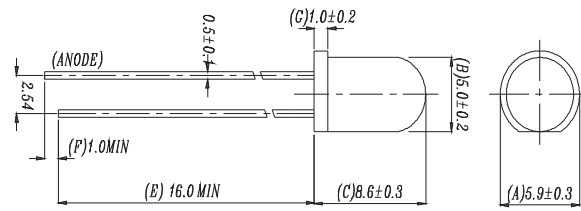


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
336SURSYGW/S530-A3	5	● Brilliant Red ● Brilliant Yellow Green	Round	624 / 573	White Diffused	16 / 32 16 / 32	2.0 / 2.4 2.0 / 2.4	90
336SYGSYGD/S530-E2	5	● Brilliant Yellow Green	Round	573 / 573	Green Diffused	8 / 16	2.0 / 2.4	90
336UYSYGW/S530-A3	5	● Super Yellow ● Super Yellow Green	Round	589/573	White Diffused	40 / 80 16 / 32	2.0 / 2.4 2.0 / 2.4	80

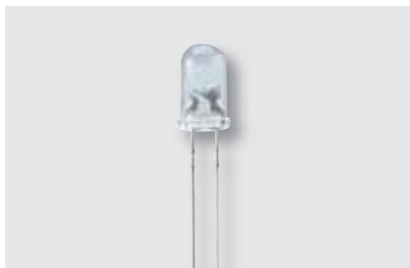
LED Lamps | 5mm Round Type



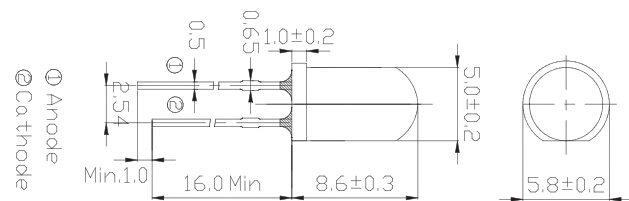
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
333-2SDRC/S530-A4	5	● Deep Red	Round	639	Water Clear	400 / 1000	2.0 / 2.4	10
333-2SUBC/C470/S400-A6	5	● Blue	Round	470	Water Clear	1000 / 2000	3.4 / 4.0	10
333-2SUGC/S400-A5	5	● Brilliant Green	Round	530	Water Clear	4000 / 8000	3.4 / 4.0	10
333-2SURC/S400-A8	5	● Brilliant Red	Round	624	Water Clear	3200 / 5000	2.0 / 2.4	10
333-2SYGC/S530-E2	5	● Brilliant Yellow Green	Round	573	Water Clear	400 / 800	2.0 / 2.4	10
333-2UYC/S400-A4	5	● Super Yellow	Round	589	Water Clear	1432 / 2148	2.0 / 2.4	10
333-2UYC/S530-A3	5	● Brilliant Yellow	Round	589	Water Clear	630 / 1250	2.0 / 2.4	10
333-2UYOC/S530-A3-L	5	● Yellow Orange	Round	605	Water Clear	630 / 1250	2.0 / 2.4	10



UNIT : mm



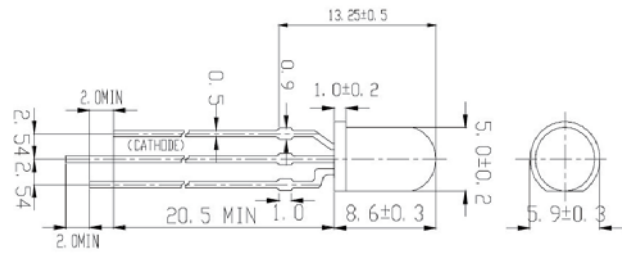
Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Max) (mcd)	$V_F$ (Min/Max) (V)	Viewing Angle (°)
334-15/F1C1-1XZA	5	○ White	Round	x=0.29, y=0.28	Water Clear	18000 / 36000	2.8 / 3.6	15
334-15/T1C1-4WYA	5	○ White	Round	x=0.30, y=0.29	Water Clear	14250 / 28500	2.8 / 3.6	15
334-15/F1C2-7VXA	5	○ White	Round	x=0.30, y=0.29	Water Clear	11250 / 22500	2.8 / 3.6	20
334-15/T1C3-2TVA	5	○ White	Round	x=0.26, y=0.27	Water Clear	7150 / 14250	2.8 / 3.6	30
334-15/T2C3-2TVC	5	○ White	Round	x=0.26, y=0.27	Water Clear	7150 / 14250	2.8 / 3.6	30
334-15/F1C5-1RTA	5	○ White	Round	x=0.29, y=0.28	Water Clear	4500 / 9000	2.8 / 3.6	50
334-15/T1C5-7QSA	5	○ White	Round	x=0.30, y=0.29	Water Clear	3600 / 7150	2.8 / 3.6	50
334-15/T2C5-1QSB	5	○ White	Round	x=0.29, y=0.28	Water Clear	3600 / 7150	2.8 / 3.6	50
334-15/X2C1-1WYB	5	● Warm White	Round	x=0.40, y=0.39	Water Clear	14250 / 28500	2.8 / 3.6	15
334-15/X1C2-1UWA	5	● Warm White	Round	x=0.40, y=0.39	Water Clear	9000 / 18000	2.8 / 3.6	20
334-15/X2C3-1TVA	5	● Warm White	Round	x=0.40, y=0.39	Water Clear	7150 / 14250	2.8 / 3.6	30
334-15/X1C5-1QSA	5	● Warm White	Round	x=0.40, y=0.39	Water Clear	3500 / 7150	2.8 / 3.6	50
334-15/X2C5-1PSB	5	● Warm White	Round	x=0.40, y=0.39	Water Clear	2850 / 7150	2.8 / 3.6	50



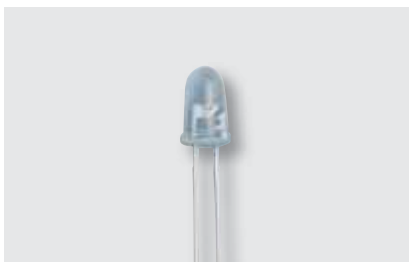
LED Lamps | 5mm Round Type



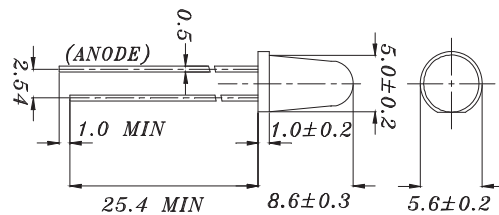
UNIT : mm



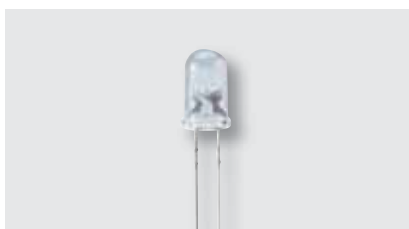
Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
339-1SURYGW/S530-A3	5	● Brilliant Red ● Brilliant Yellow Green	Round	624 / 573	White Diffused	25 / 50 16 / 32	2.0 / 2.4 2.0 / 2.4	70
339-1UYSYGW/S530-A3	5	● Brilliant Yellow ● Brilliant Yellow Green	Round	589 / 573	White Diffused	63 / 100 32 / 50	2.0 / 2.4 2.0 / 2.4	70
339-1UYUBW/S530-A4	5	● Brilliant Yellow ● Blue	Round	589 / 470	White Diffused	25 / 50 16 / 32	2.0 / 2.4 3.3 / 3.7	100



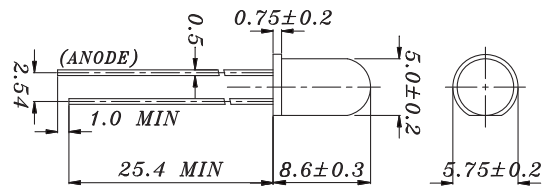
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
383-2SDRC/S530-A3	5	● Super Deep Red	Round	639	Water Clear	1000 / 2000	2.0 / 2.4	6
383-2SUGC/S400-A4	5	● Super Green	Round	525	Water Clear	2500 / 4000	3.4 / 4.0	20
383-2SUBC/C470/S400-A6	5	● Blue	Round	470	Water Clear	1600 / 3200	3.3 / 3.7	20
383-2SURC/S530-A3	5	● Hyper Red	Round	624	Water Clear	1000 / 2500	2.0 / 2.4	6
383-2SYGC/S530-E2	5	● Brilliant Yellow Green	Round	573	Water Clear	160 / 320	2.0 / 2.4	10
383-2USOC/S530-A6	5	● Super Sunset Orange	Round	615	Water Clear	6300 / 8000	2.0 / 2.4	6
383-2UYC/S530-A3	5	● Brilliant Yellow	Round	589	Water Clear	2713 / 4263	2.0 / 2.4	6

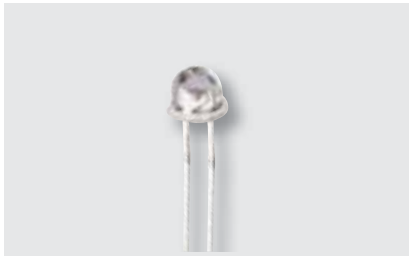


UNIT : mm

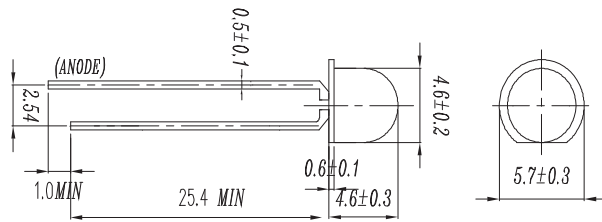


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
1383-2SDRD/S530-A3	5	● Super Deep Red	Round	639	Red Diffused	160 / 320	2.0 / 2.4	30
1383-2SURD/S530-A3	5	● Brilliant Red	Round	624	Red Diffused	250 / 500	2.0 / 2.4	40
1383SYGD/S530-E2	5	● Brilliant Yellow Green	Round	573	Green Diffused	100 / 200	2.0 / 2.4	25
1383UYD/S530-A3	5	● Brilliant Yellow	Round	589	Yellow Diffused	400 / 800	2.0 / 2.4	25

LED Lamps | 5mm Round Type



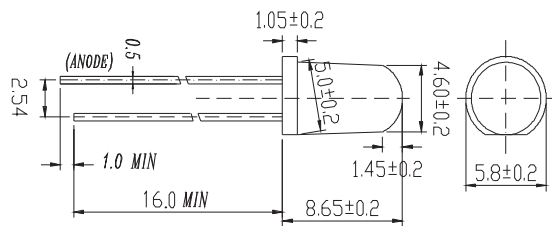
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
6324-15SUBC/S400-X10	4.6	Blue	Round	470	Water Clear	250 / 500	3.3 / 3.7	60
6324-15SURC/S400-A9	4.6	Brilliant Red	Round	624	Water Clear	160 / 320	2.0 / 2.4	100
6324-15SUGC/S400-A5	4.6	Super Green	Round	530	Water Clear	630 / 1250	3.4 / 4.0	60



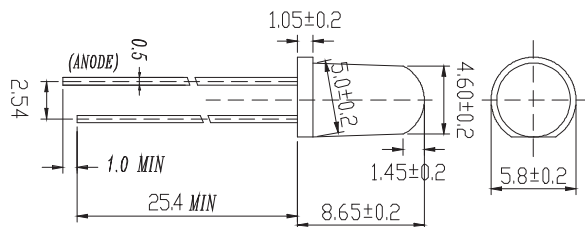
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
7343-2SURC/S530-A3	4.6	Brilliant Red	Round	624	Water Clear	400 / 800	2.0 / 2.4	20
7343-2SYGC/S530-E2	4.6	Super Yellow Green	Round	573	Water Clear	160 / 320	2.0 / 2.4	20
7343-2USOC/S530-A3	4.6	Super Sunset Orange	Round	615	Water Clear	630 / 1250	2.0 / 2.4	20
7343-2SURC/S530-A3	4.6	Brilliant Red	Round	624	Water Clear	400 / 800	2.0 / 2.4	20



UNIT : mm



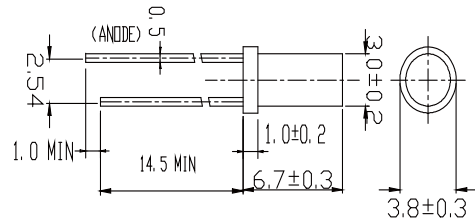
Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
7344-15SUBC/C470/S400-A6	4.6	Blue	Round	470	Water Clear	1000 / 2000	3.3 / 3.7	20
7344-15SUGC/S400-A5	4.6	Brilliant Green	Round	525	Water Clear	5000 / 8000	3.3 / 3.7	30
7344-15SUGC/S400-X6	4.6	Brilliant Green	Round	525	Water Clear	8000 / 11000	3.3 / 3.7	20

LED Lamps

LED Lamps | 3mm Cylindrical



UNIT : mm

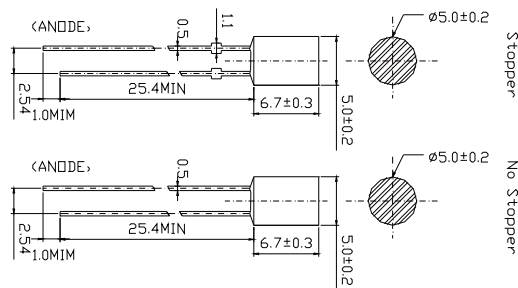


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
414-10UYD/S530-A3	3	● Super Yellow	Cylindrical	589	Yellow Diffused	25 / 40	2.0 / 2.4	120
414-10SURD/S530-A3	3	● Hyper Red	Cylindrical	624	Red Diffused	16 / 32	2.0 / 2.4	120

LED Lamps | 5mm Cylindrical



UNIT : mm

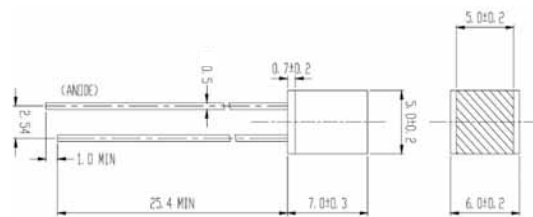


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
423-2UYC/S530-A6	5	● Brilliant Yellow	Cylindrical	589	Water Clear	100 / 200	2.0 / 2.4	90
423-2SURC/S530-A3	5	● Brilliant Red	Cylindrical	624	Water Clear	25 / 63	2.0 / 2.4	80
423-2SUBC/S400-X9	5	● Blue	Cylindrical	470	Water Clear	100 / 200	3.3 / 3.7	80
423-2UYOC/S530-A6	5	● Brilliant Orange	Cylindrical	605	Water Clear	160 / 320	2.0 / 2.4	80

LED Lamps | 5mm Square



UNIT : mm

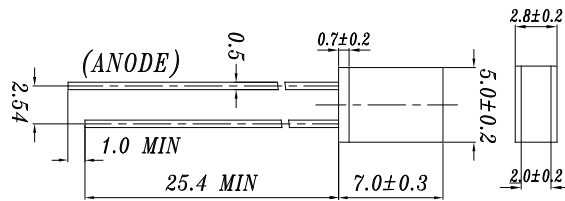


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
583SURD/S530-A3	5x5	● Brilliant Red	Square	624	Red Diffused	12.5 / 20	2.0 / 2.4	130
583SYGD/S530-E2	5x5	● Brilliant Yellow Green	Square	573	Green Diffused	2.5 / 5	2.0 / 2.4	170
583UYD/S530-A3	5x5	● Brilliant Yellow	Square	589	Yellow Diffused	10 / 20	2.0 / 2.4	170

LED Lamps | Rectangular



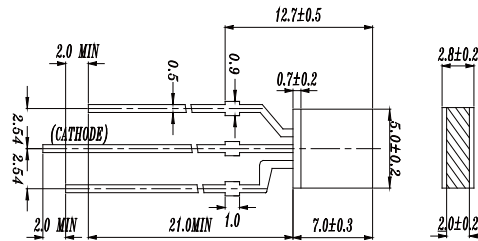
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/ CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
513SURD/S530-A3	2x5	● Hyper Red	Rectangle	624	Water Clear	10 / 20	2.0 / 2.4	180
513SYGD/S530-E2	2x5	● Super Yellow Green	Rectangle	573	Green Diffused	6.3 / 12.5	2.0 / 2.4	140
513UYD/S530-A3	2x5	● Super Yellow	Rectangle	589	Yellow Diffused	20 / 32	2.0 / 2.4	150



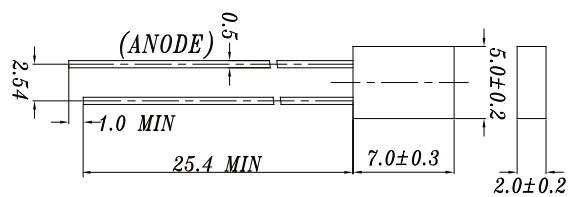
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/ CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
519-1SURSYGW/S530-A3	2x5	● Brilliant Red ● Brilliant Yellow Green	Rectangle	624 / 573	White Diffused	6.3 / 12.5 2.5 / 5.0	2.0 / 2.4 2.0 / 2.4	180



UNIT : mm

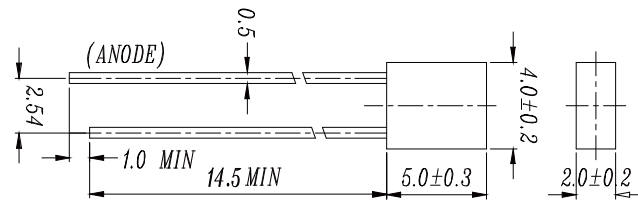


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/ CIE(x,y)	Resin Color	$I_v$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
523-2SDRD/S530-A3	2x5	● Deep Red	Rectangle	639	Red Diffused	10 / 16	2.0 / 2.4	120
523-2SURD/S530-A3	2x5	● Brilliant Red	Rectangle	624	Red Diffused	16 / 32	2.0 / 2.4	120
523-2SUGD/S400-A6	2x5	● Brilliant Green	Rectangle	525	Green Diffused	160 / 320	3.3 / 3.7	130
523-2UYD/S530-A3	2x5	● Brilliant Yellow	Rectangle	589	Yellow Diffused	6.3 / 12.5	2.0 / 2.4	120
523SYGD/S530-E2	2x5	● Brilliant Yellow Green	Rectangle	573	Green Diffused	4 / 8	2.0 / 2.4	170

LED Lamps | Rectangular



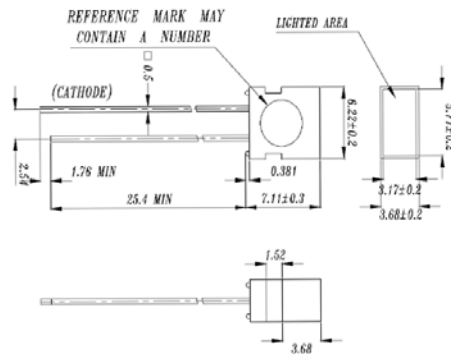
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
594SURD/S530-A3	2x4	● Brilliant Red	Rectangular	624	Red Diffused	10 / 16	2.0 / 2.4	170
594UYD/S530-A3	2x4	● Brilliant Yellow	Rectangular	589	Yellow Diffused	10 / 20	2.0 / 2.4	180
594SYGD/S530-E2	2x4	● Brilliant Yellow Green	Rectangular	573	Green Diffused	4.0 / 8.0	2.0 / 2.4	180
594UYD/S530-A3	2x4	● Brilliant Yellow	Rectangular	589	Yellow Diffused	10 / 20	2.0 / 2.4	180



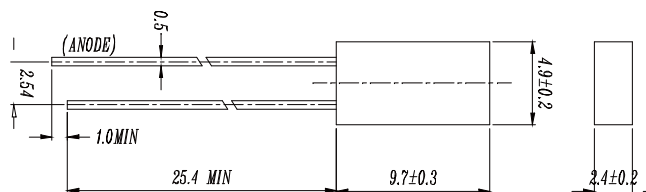
UNIT : mm



Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
1003SURD/S530-A3	3.68x6.22	● Brilliant Red	Rectangular	624	Red Diffused	25 / 50	2.0 / 2.4	110
1003SYGD/S530-E2	3.68x6.22	● Brilliant Yellow Green	Rectangular	573	Green Diffused	6.3 / 12.5	2.0 / 2.4	110
1003SUBD/S400-A6	3.68x6.22	● Blue	Rectangular	470	Blue Diffused	10 / 20	3.3 / 4.0	110
1003SUGD/S400-A4	3.68x6.22	● Brilliant Green	Rectangular	525	Green Diffused	16 / 50	3.3 / 4.0	110



UNIT : mm

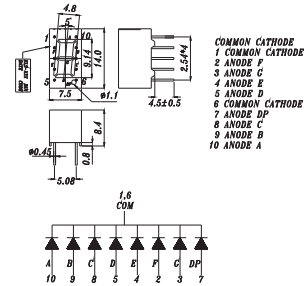


Product	Size (mm)	Color	Lens Type	$\lambda_d$ (nm)/CIE(x,y)	Resin Color	$I_V$ (Min/Typ) (mcd)	$V_F$ (Typ/Max) (V)	Viewing Angle (°)
1533SURD/S530-A3	2.4x4.9	● Brilliant Red	Round	624	Red Diffused	10 / 20	2.0 / 2.4	170
1533UYD/S530-A3	2.4x4.9	● Brilliant Yellow	Round	589	Yellow Diffused	10 / 20	2.0 / 2.4	180

LED Digital Displays | Chip On Board Display | Single Digit Display



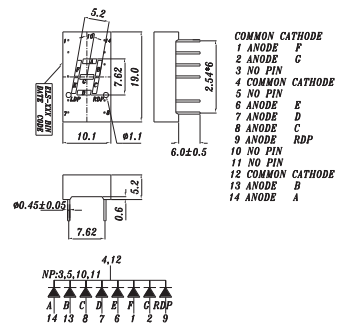
UNIT : mm



Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
S315SYGWA/S530-E2	9.14 (0.3)	● Brilliant Yellow Green	4.8	CC	573	White	Gray	2.0 / 3.2



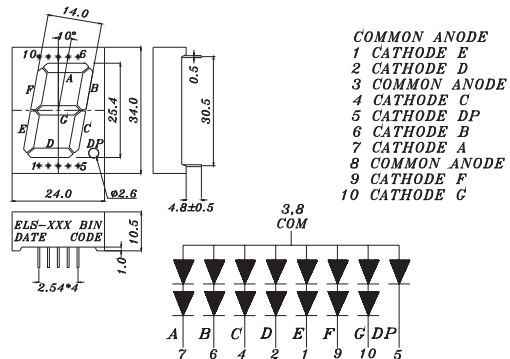
UNIT : mm



Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
S321SURWA/S530-A3	7.62 (0.3)	● Brilliant Red	5.2	CC	624	White	Gray	5.6 / 11.0
S321USOWA/S530-A4	7.62 (0.3)	● Reddish Orange	5.2	CC	615	White	Gray	7.8 / 17.6



UNIT : mm

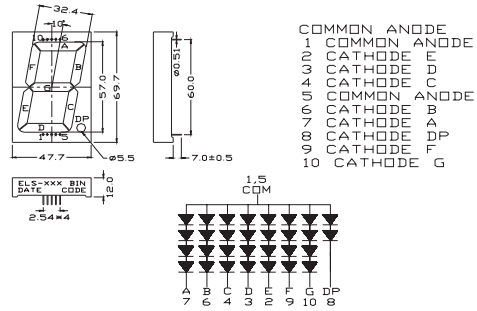


Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
S1006SURWA/S530-A3	25.4(1.0)	● Brilliant Red	14	CA	624	White	Gray	15 / 24
S1006SYGWA/S530-E2	25.4(1.0)	● Brilliant Yellow Green	14	CA	573	Green	Gray	5.6 / 12.5
S1006SDRDB/A3/S660	25.4(1.0)	● Deep-Red	14	CA	639	Red	Black	11.0 / 24.0

LED Digital Displays | Chip On Board Display | Single Digit Display



UNIT : mm

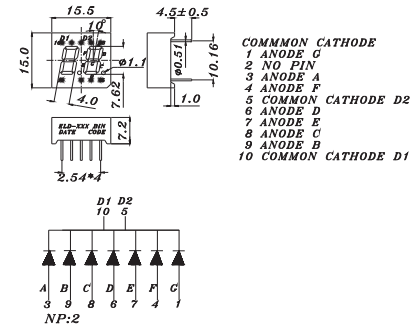


Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
S2326SURWA/S530-A3	57 (2)	● Brilliant Red	32.4	CA	624	White	Gray	15 / 34
S2326USOWA/S530-A4	57 (2)	● Reddish Orange	32.4	CA	615	White	Gray	30 / 67
S2326SYGWA/S530-E2	57 (2)	● Brilliant Yellow Green	32.4	CA	573	White	Gray	5.6 / 12.5
S2326UBWA/C470	57 (2)	● Blue	32.4	CA	470	White	Gray	15 / 34

LED Digital Displays | Chip On Board Display | Dual Digit Display



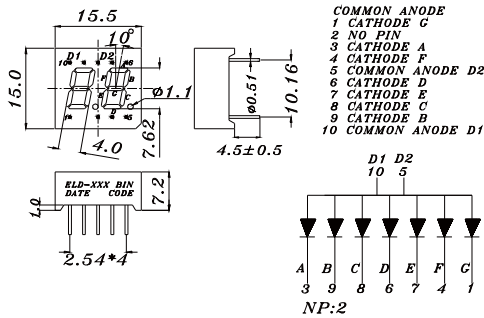
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D305SURWA/S530-A3	7.62 (0.3)	● Brilliant Red	4	CC	624	White	Gray	4.0 / 6.4
D305SDRWB/S530-A3	7.62 (0.3)	● Deep-Red	4	CC	639	White	Black	2.0 / 4.5



UNIT : mm

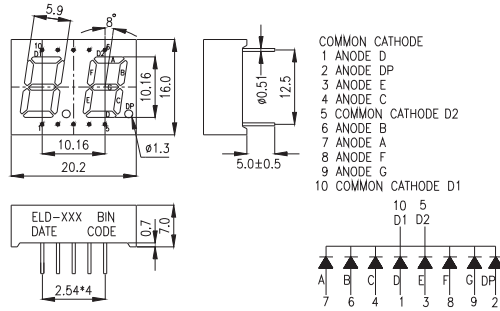


Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D306SURWA/S530-A3	7.62 (0.3)	● Brilliant Red	4	CA	624	White	Gray	4.0 / 6.4
D306USOWA/S530-A3	7.62 (0.3)	● Reddish Orange	4	CA	615	White	Gray	4.0 / 8.9

LED Digital Displays | Chip On Board Display | Dual Digit Display



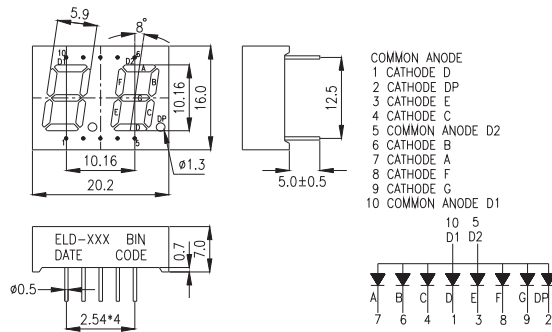
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D425SURWA/S530-A3	10.16 (0.4)	● Brilliant Red	5.9	CC	624	White	Gray	7.8 / 15.0
D425USOWA/S530-A4	10.16 (0.4)	● Reddish Orange	5.9	CC	615	White	Gray	11.0 / 24.0
D425SYGWA/S530-E2	10.16 (0.4)	● Brilliant Yellow Green	5.9	CC	573	White	Gray	2.0 / 3.2
D425SDRWA/S530-A4	10.16 (0.4)	● Deep-Red	5.9	CC	639	White	Gray	4.0 / 8.9



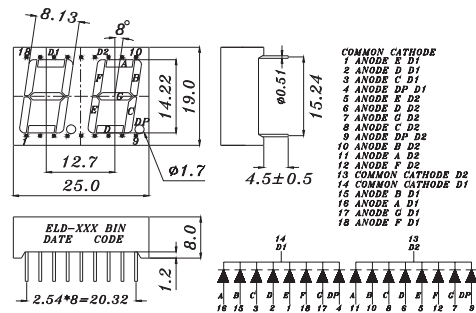
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D426SURWB/S530-A3	10.16 (0.4)	● Brilliant Red	5.9	CA	624	White	Black	7.8 / 15
D426USOWA/S530-A3	10.16 (0.4)	● Reddish Orange	5.9	CA	615	White	Gray	11 / 24
D426UYOWB/S530-A3	10.16 (0.4)	● Orange	5.9	CA	605	White	Black	5.6 / 12.5
D426SYGWA/S530-E2	10.16 (0.4)	● Brilliant Yellow Green	5.9	CA	573	White	Gray	2 / 3.2



UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D511SURWB/S530-A3	14.22 (0.5)	● Brilliant Red	8.13	CC	624	White	Black	7.8 / 15
D511SYGWB/S530-E2	14.22 (0.5)	● Brilliant Yellow Green	8.13	CC	573	White	Black	2.8 / 6.4

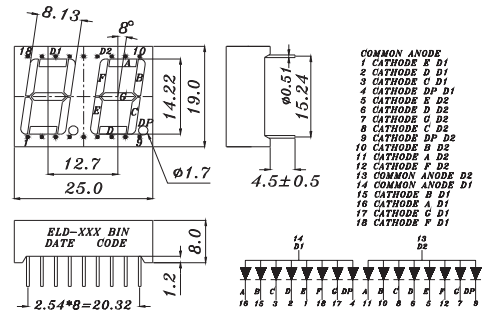
LED Digital Displays



LED Digital Displays | Chip On Board Display | Dual Digit Display



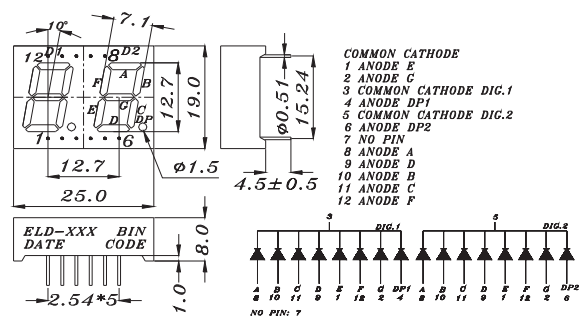
UNIT : mm



Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D512SURWB/S530-A3	14.22 (0.5)	● Brilliant Red	8.13	CA	624	White	Black	7.8 / 17.6
D512SDRWB/S530-A3	14.22 (0.5)	● Deep-Red	8.13	CA	639	White	Black	4.0 / 8.9
D512SYGWA/S530-E2	14.22 (0.5)	● Brilliant Yellow Green	8.13	CA	573	White	Gray	2.8 / 6.4



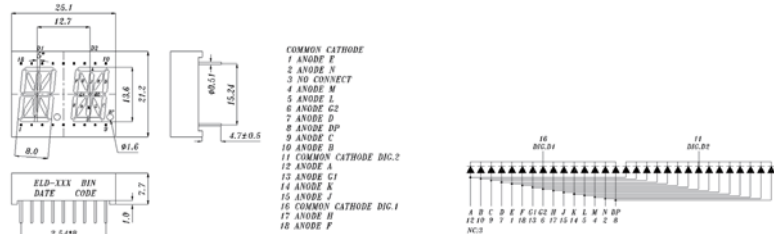
UNIT : mm



Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D515SURWA/S530-A3	12.7 (0.5)	● Brilliant Red	7.1	CC	624	White	Gray	7.8 / 15



UNIT : mm

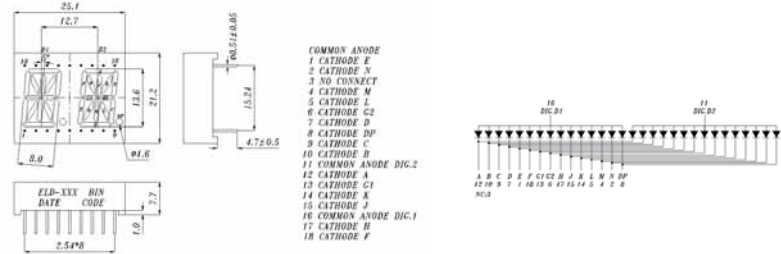


Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D525SURWA/S530-A3	13.6 (0.5)	● Brilliant Red	8	CC	624	White	Gray	7.8 / 12.5
D525SYGWA/S530-E2	13.6 (0.5)	● Brilliant Yellow Green	8	CC	573	White	Gray	2.8 / 4.5

LED Digital Displays | Chip On Board Display | Dual Digit Display



UNIT : mm

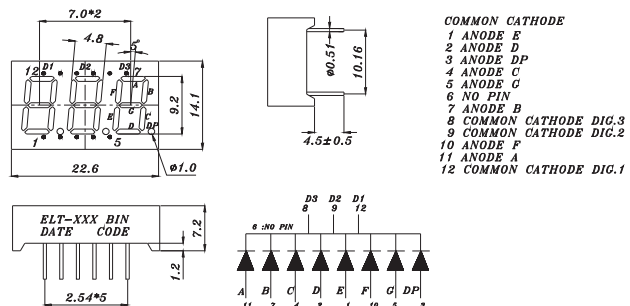


Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
D526SURWA/S530-A3	13.6 (0.5)	● Brilliant Red	8	CA	624	White	Gray	7.8 / 12.5
D526USOWA/S530-A4	13.6 (0.5)	● Reddish Orange	8	CA	615	White	Gray	5.6 / 12.5

LED Digital Display | Chip On Board Display | Three Digit Display



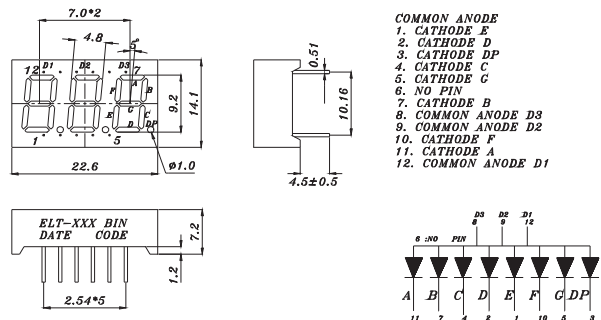
UNIT : mm



Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
T315SYGWA/S530-E2	9.2 (0.3)	● Brilliant Yellow Green	4.8	CC	573	White	Gray	1.4 / 3.2
T315UYOWA/S530-A3	9.2 (0.3)	● Orange	4.8	CC	605	White	Gray	4.0 / 8.9
T315SURWA/S530-A2	9.2 (0.3)	● Brilliant Red	4.8	CC	624	White	Gray	2.8 / 8.5
T315SDRWA/S530-A3	9.2 (0.3)	● Deep-Red	4.8	CC	639	White	Gray	4.0 / 6.4



UNIT : mm

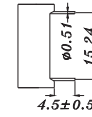
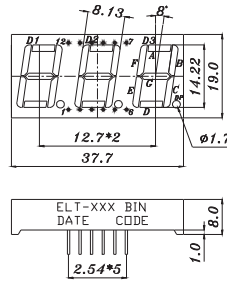


Product	Segement Height mm (inch)	Color	Segement Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
T316SURWA/S530-A3	9.2 (0.3)	● Brilliant Red	4.8	CA	624	White	Gray	5.6 / 8.9
T316SYGWA/S530-E2	9.2 (0.3)	● Brilliant Yellow Green	4.8	CA	573	White	Gray	1.4 / 3.2
T316SDRWA/S530-A3	9.2 (0.3)	● Deep-Red	4.8	CA	639	White	Gray	4.0 / 6.4

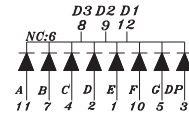
LED Digital Displays | Chip On Board Display | Three Digit Display



UNIT : mm



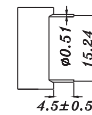
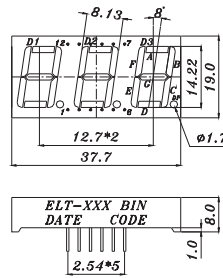
- COMMON CATHODE**  
 1 ANODE E  
 2 ANODE D  
 3 ANODE DP  
 4 ANODE C  
 5 ANODE B  
 6 NO CONNECT  
 7 ANODE A  
 8 COMMON CATHODE D3  
 9 COMMON CATHODE D2  
 10 ANODE F  
 11 ANODE A  
 12 COMMON CATHODE D1



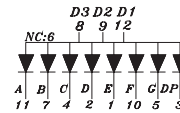
Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
T511SURWA/S530-A3	14.22 (0.5)	● Brilliant Red	8.13	CC	624	White	Gray	7.8 / 17.6
T511SYGWA/S530-E2	14.22 (0.5)	● Brilliant Yellow Green	8.13	CC	573	White	Gray	2.8 / 4.5
T511UYOWA/S530-A3	14.22 (0.5)	● Orange	8.13	CC	605	White	Gray	5.6 / 12.5
T511SUGWB/S400-A4/S800	14.22 (0.5)	● Brilliant Green	8.13	CC	525	White	Black	30.0 / 67.0



UNIT : mm



- COMMON ANODE**  
 1 CATHODE E  
 2 CATHODE D  
 3 CATHODE DP  
 4 CATHODE C  
 5 CATHODE B  
 6 NO CONNECT  
 7 CATHODE A  
 8 COMMON ANODE D3  
 9 COMMON ANODE D2  
 10 CATHODE F  
 11 CATHODE A  
 12 COMMON ANODE D1

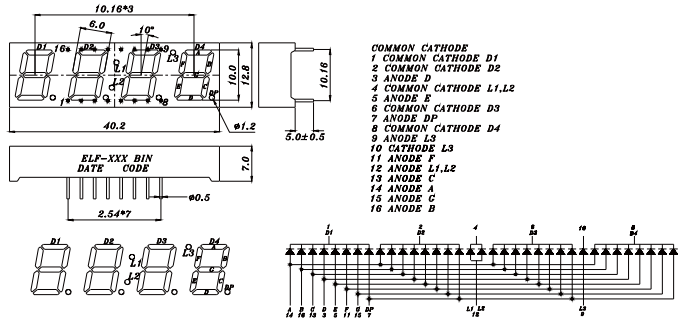


Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
T512SURWA/S530-A3	14.22 (0.5)	● Brilliant Red	8.13	CA	624	White	Gray	7.8 / 17.6
T512SYGWA/S530-E2	14.22 (0.5)	● Brilliant Yellow Green	8.13	CA	573	White	Gray	2.8 / 4.5
T512UYOWA/S530-A3	14.22 (0.5)	● Orange	8.13	CA	605	White	Gray	5.6 / 12.5
T512USOWA/S530-A4	14.22 (0.5)	● Reddish Orange	8.13	CA	615	White	Gray	7.8 / 17.6
T512SURWB/S530-A3	14.22 (0.5)	● Brilliant Red	8.13	CA	624	White	Black	7.8 / 17.6
T512SYGWB/S530-E2	14.22 (0.5)	● Brilliant Yellow Green	8.13	CA	573	White	Black	2.8 / 4.5

LED Digital Displays | Chip On Board Display | Four Digit Display



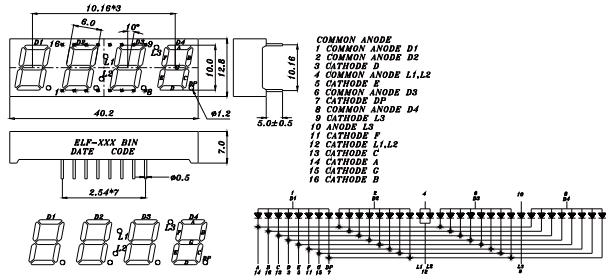
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
F415SURWA/S530-A3	10 (0.4)	● Brilliant Red	6	CC	624	White	Gray	5.6 / 8.9
F415SURWB/S530-A3	10 (0.4)	● Brilliant Red	6	CC	624	White	Black	5.0 / 8.9



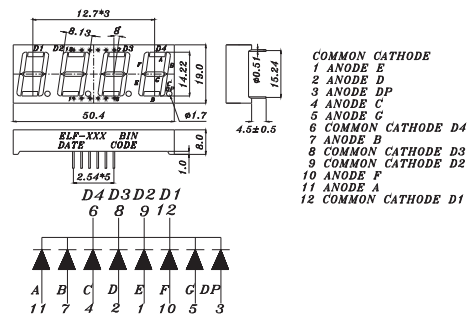
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
F416SYGWA/S530-E3	10 (0.4)	● Brilliant Yellow Green	6	CA	573	White	Gray	4 / 8.9
F416SURWA/S530-A3	10 (0.4)	● Brilliant Red	6	CA	624	White	Gray	5.6 / 12.5
F416USRWA/S530-A3	10 (0.4)	● Dark-Red	6	CA	631	White	Gray	5.6 / 8.9
F416SURWB/S530-A3	10 (0.4)	● Brilliant Red	6	CA	624	White	Black	5.6 / 8.9



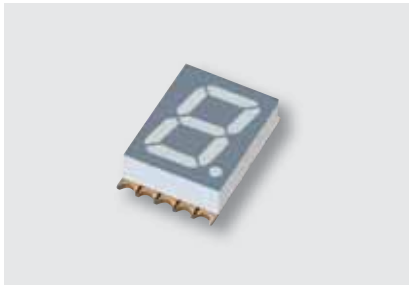
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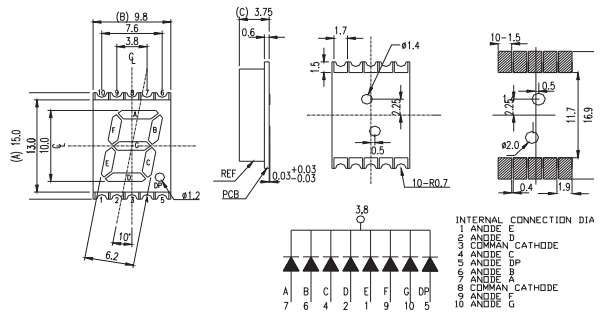
Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
F511SURWA/S530-A3	14.22 (0.5)	● Brilliant Red	8.13	CC	624	White	Gray	7.8 / 15
F511SYGWA/S530-E2	14.22 (0.5)	● Brilliant Yellow Green	8.13	CC	573	White	Gray	2.8 / 6.4
F511SURWB/S530-A3	14.22 (0.5)	● Brilliant Red	8.13	CC	624	White	Black	11 / 24



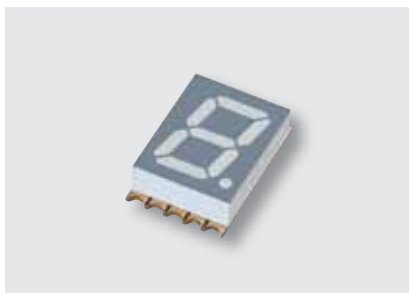
LED Digital Displays | SMD Display | Single Digit Display



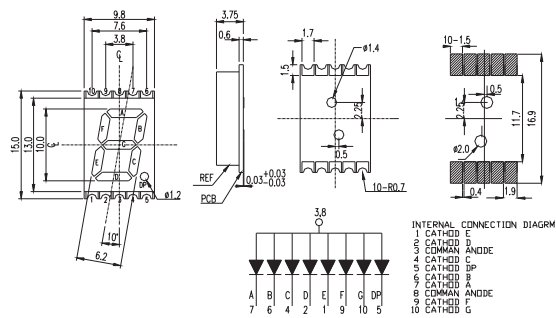
UNIT : mm



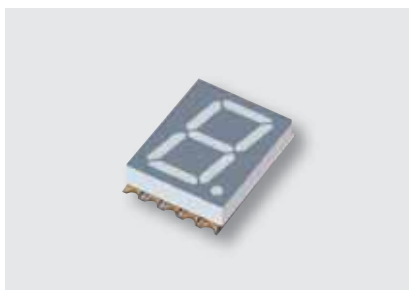
Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SS405SYGWA/S530-E2	10 (0.4)	● Brilliant Yellow Green	6.2	CC	573	White	Gray	5.6 / 12.5



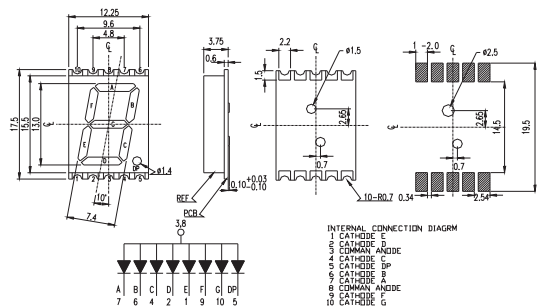
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SS406SYGWA/S530-E2	10 (0.4)	● Brilliant Yellow Green	6.2	CA	573	White	Gray	5.6 / 12.5
SS406USRWA/S530-A3/S290	10 (0.4)	● Dark-Red	6.2	CA	631	White	Gray	5.6 / 12.5
SS406UBWA/C470/S290	10 (0.4)	● Blue	6.2	CA	470	White	Gray	15.0 / 40.5
SS406UWWA/S290	10 (0.4)	○ Pure White	6.2	CA	X 0.270 / 0.310 Y 0.222 / 0.343	White	Gray	30.0 / 67.0

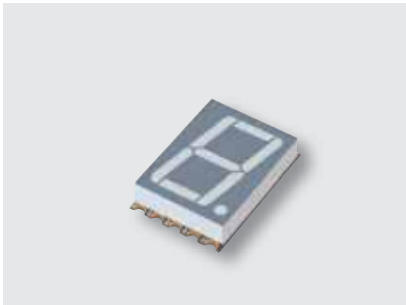


UNIT : mm

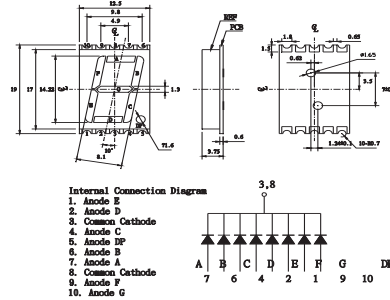


Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SS506SYGWA/S530-E2	13.0 (0.5)	● Brilliant Yellow Green	7.4	CA	573	White	Gray	5.6 / 9.1
SS506SURWA/S530-A4/S290	13.0 (0.5)	● Brilliant Red	7.4	CA	624	White	Gray	7.8 / 15.0

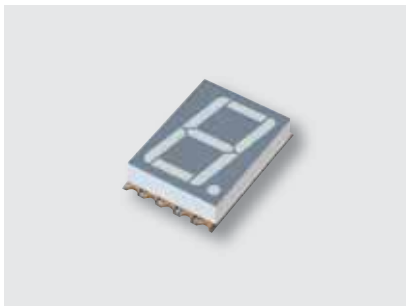
LED Digital Displays | SMD Display | Single Digit Display



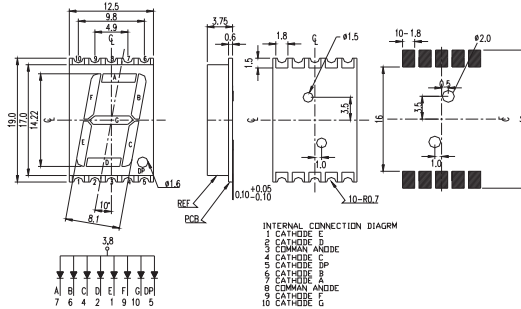
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SS511SURWA/S530-A3/S290	14.22 (0.5)	● Hyper Red	8.1	CC	624	White	Gray	15 / 34
SS511SYGWA/S530-E2/S290	14.22 (0.5)	● Brilliant Yellow Green	8.1	CC	573	White	Gray	4 / 8.9
SS511UBWA/C470	14.22 (0.5)	● Blue	8.1	CC	470	White	Gray	11.0 / 24.0

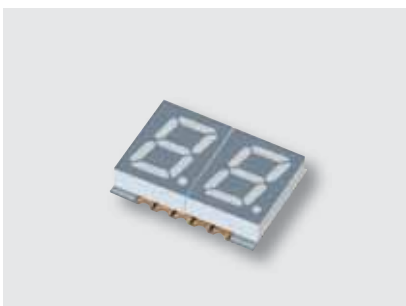


UNIT : mm

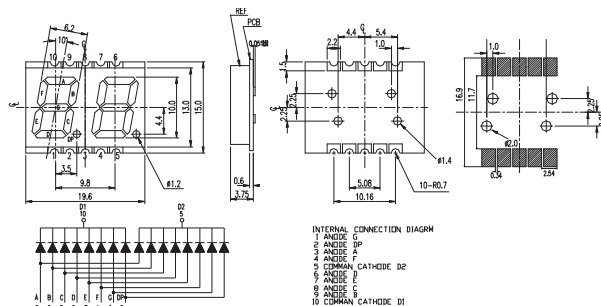


Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SS512SURWA/S530-A3/S290	14.22 (0.5)	● Brilliant Red	8.1	CA	624	White	Gray	11 / 24
SS512SYGWA/S530-E2	14.22 (0.5)	● Brilliant Yellow Green	8.1	CA	573	White	Gray	4.0 / 8.9

LED Digital Display | SMD Display | Dual Digit Display

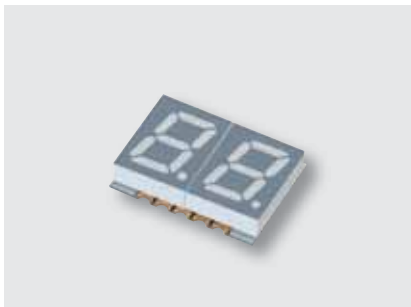


UNIT : mm

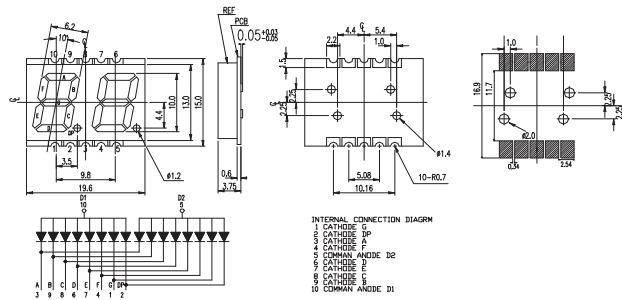


Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SD405SURWA/S530-A3/S290	10 (0.4)	● Brilliant Red	6.2	CA	624	White	Gray	7.8 / 17.6
SD405SYGWA/S530-E2	10 (0.4)	● Brilliant Yellow Green	6.2	CA	573	White	Gray	5.6 / 12.5

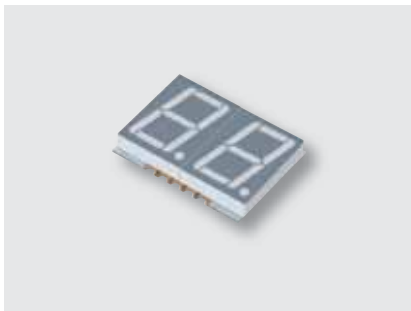
LED Digital Displays | SMD Display | Dual Digit Display



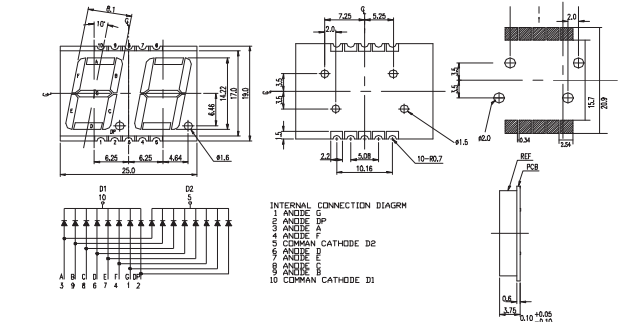
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SD406SURWA/S530-A4/S290	10 (0.4)	● Brilliant Red	6.2	CA	624	White	Gray	7.8 / 17.6
SD406SYGWA/S530-E2/S290	10 (0.4)	● Brilliant Yellow Green	6.2	CA	573	White	Gray	5.6 / 12.5



UNIT : mm

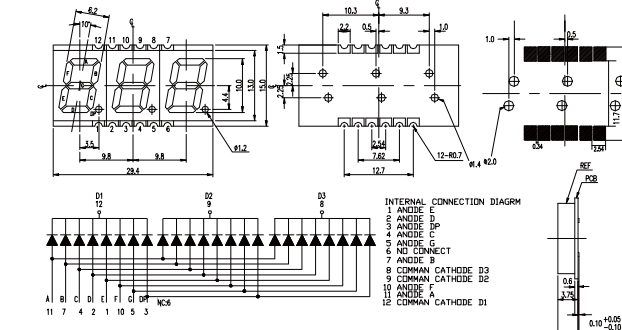


Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SD511SYGWA/S530-E2/S290	14.22 (0.5)	● Brilliant Yellow Green	8.1	CC	573	White	Gray	5.6 / 12.5

LED Digital Display | SMD Display | Three Digit Display



UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
ST405SYGWA/S530-E2	10 (0.4)	● Brilliant Yellow Green	6.2	CC	573	White	Gray	4.0 / 8.9
ST405UYOWA/S530-A3/S290	10 (0.4)	● Brilliant Orange	6.2	CC	605	White	Gray	18.0 / 34.0
ST405SUGWA/S530-A4/S290	10 (0.4)	● Brilliant Green	6.2	CC	525	White	Gray	21.0 / 48.0

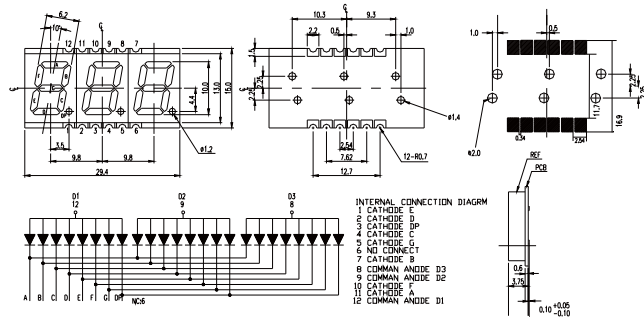
LED Digital Displays



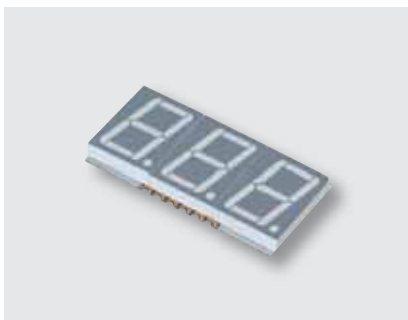
LED Digital Displays | SMD Display | Three Digit Display



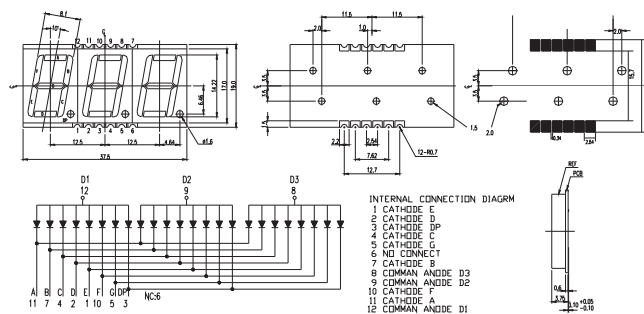
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
ST406SURWA/S530-A3/S290	10 (0.4)	● Brilliant Red	6.2	CA	624	White	Gray	7.8 / 17.6
ST406SYGWA/S530-E2	10 (0.4)	● Brilliant Yellow Green	6.2	CA	573	White	Gray	4.0 / 8.9



UNIT : mm

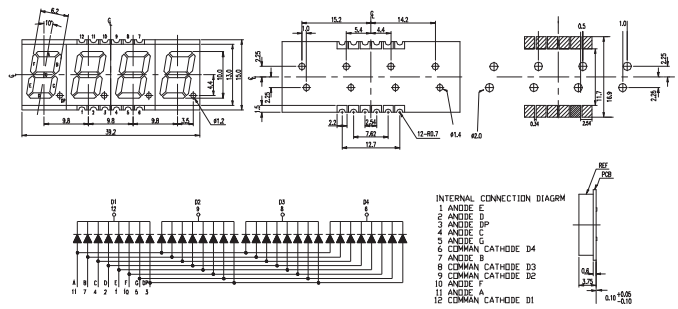


Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
ST512SURWA/S530-A3/S290	14.22 (0.5)	● Brilliant Red	8.1	CA	624	White	Gray	7.8 / 17.6
ST512SYGWA/S530-E2/S290	14.22 (0.5)	● Brilliant Yellow Green	8.1	CA	573	White	Gray	7.8 / 17.6
ST512UBWA/C470/S290	14.22 (0.5)	● Blue	8.1	CA	470	White	Gray	15.0 / 37.2

LED Digital Displays | SMD Display | Four Digit Display



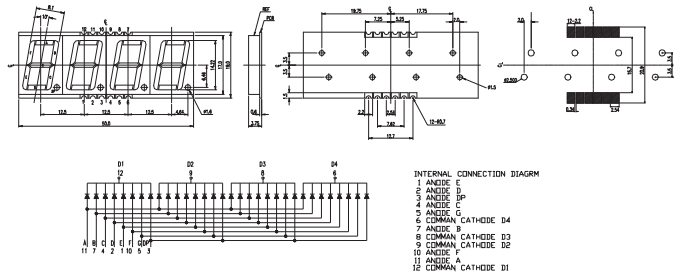
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SF405SURWA/S530-A3/S290	10 (0.4)	● Brilliant Red	6.2	CC	624	White	Gray	7.8 / 17.6
SF405UYOWA/A3/S290	10 (0.4)	● Brilliant Orange	6.2	CA	605	White	Gray	11.0 / 24.0



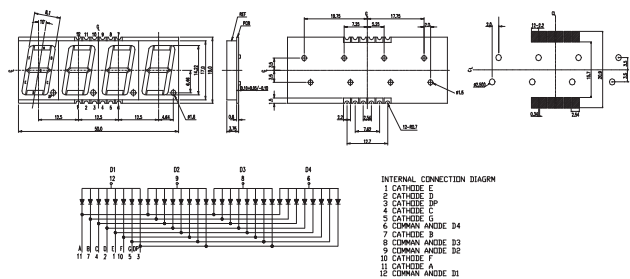
UNIT : mm



Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SF511SURWA/S530-A3/S290	14.22 (0.5)	● Brilliant Red	8.1	CC	624	White	Gray	11 / 24
SF511SYGWA/S530-E2/S796	14.22 (0.5)	● Brilliant Yellow Green	8.1	CC	573	White	Gray	4 / 8.9



UNIT : mm



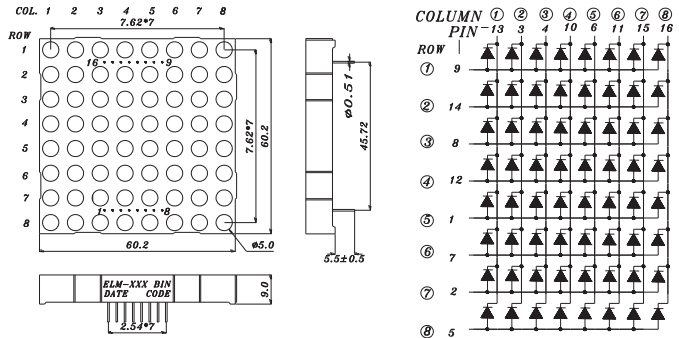
Product	Segment Height mm (inch)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
SF512SURWA/S530-A3/S290	14.22 (0.5)	● Brilliant Red	8.1	CA	624	White	Gray	11 / 24

LED Digital Displays

LED Digital Displays | Dot Matrix Display

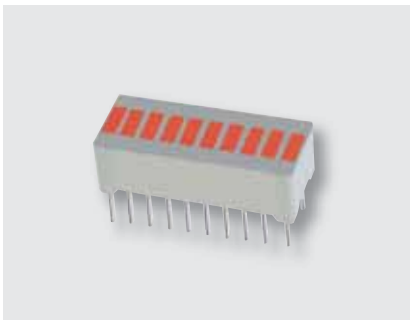


UNIT : mm

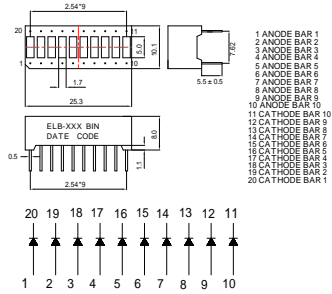


Product	Size (LxWmm)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
M2881SURWA/S530-A3	60.2x60.2	● Brilliant Red	--	CC	624	White	Gray	7.8 / 21
M2881SYGWA/S530-E2	60.2x60.2	● Brilliant Yellow Green	--	CC	573	White	Gray	7.8 / 17.6
M2881UYWA/S530-A3	60.2x60.2	● Brilliant Yellow	--	CC	589	White	Gray	11 / 17.6

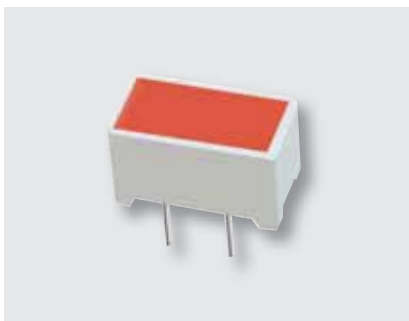
LED Digital Displays | Light Bar Display



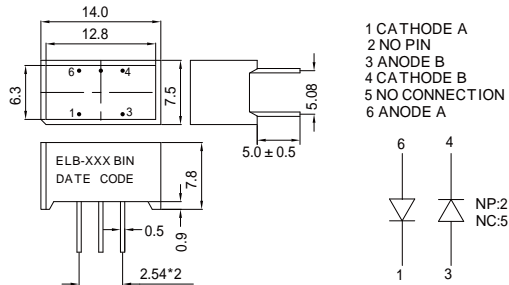
UNIT : mm



Product	Size (LxWmm)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
B1001USOWA/S530-A4	25.3x10.1	● Reddish Orange	--	CC	615	White	Gray	7.8 / 17.6
B1001SYGWA/S530-E2	25.3x10.1	● Brilliant Yellow Green	--	CC	573	White	Gray	2.8 / 4.5

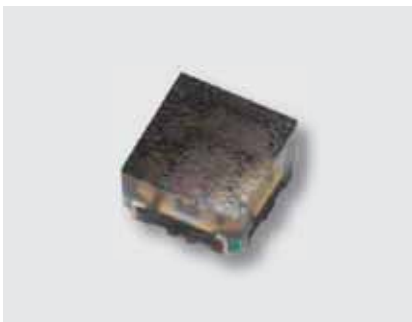


UNIT : mm

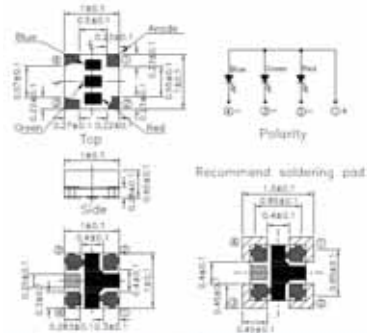


Product	Size (LxWmm)	Color	Segment Width	CC/CA	$\lambda_d$ (nm)	Resin Color	Face Color	$I_v$ (Min/Typ) (mcd)
B1010SURD/S530-A3	14.0x7.5	● Brilliant Red	--	CA	624	Red	White	11 / 24
B1010SYGD/S530-E3	14.0x7.5	● Brilliant Yellow Green	--	CA	573	Green	White	2.8 / 6.4

Signage LED | Surface Mount Chip LED (PCB)



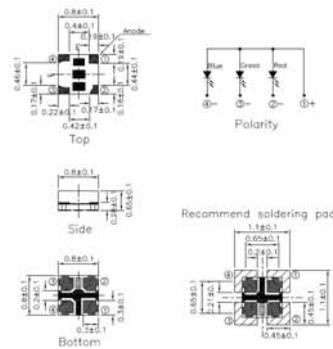
UNIT : mm



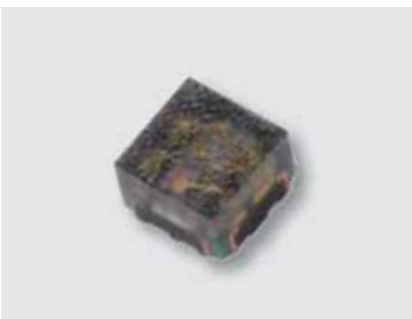
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
					Typ.	Max.		
18-038BT Series	1.0x1.0x0.65 (4-pin)	● Red	619~626	28	1.7	2.4	5	120
		● Green	523.5~532.5	75	2.5	3.2		
		● Blue	463.5~472.5	12	2.5	3.2		



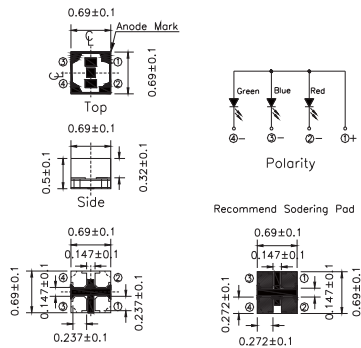
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
					Typ.	Max.		
18-039B Series	0.8x0.8x0.65 (4-pin)	● Red	619~626	14.1	1.7	2.4	3	120
		● Green	523.5~532.5	69.7	2.5	3.2		
		● Blue	463.5~472.5	12.8	2.5	3.2		



UNIT : mm



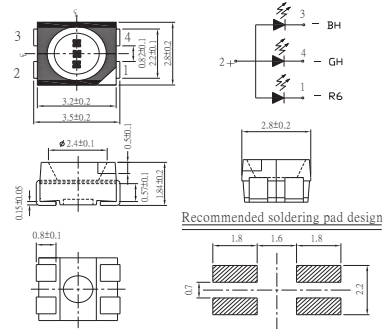
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
					Typ.	Max.		
18-036BD Series	0.69x0.69x0.5 (4-pin)	● Red	619~626	28.8	1.7	2.4	5	120
		● Green	523~532.5	69.9	2.5	3.2		
		● Blue	463.5~472.5	12.8	2.5	3.2		

Signage LED

Signage LED | Surface Mount PLCC LED (Reflector)



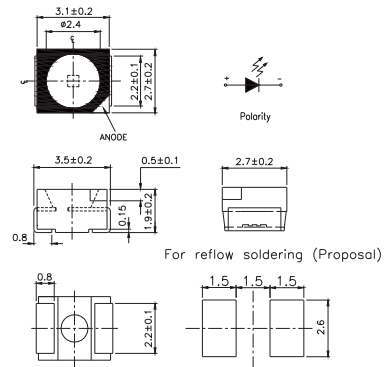
UNIT : mm



Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
					Typ.	Max.		
67-03A/R6GHBHW-A01/2T/MS	3.5x2.8x1.84	● Red	620.5~627.5	226	1.7	2.6	20	120
		● Green	513~533	1000	2.7	3.6		
		● Blue	456.5~471.5	230	2.7	3.6		



UNIT : mm



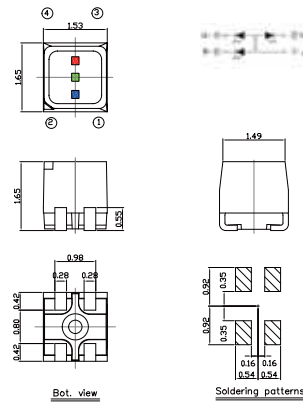
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
					Typ.	Max.		
67-01/Y2W-MV1W1/2T/MS	2.7X3.1X1.9 (2 pin)	● Yellow	585-594	1067.5	2.1	2.4	20	120
		● Red	620-629	1010				

### Signage LED | Surface Mount PLCC LED (Reflector)

For outdoor



UNIT : mm

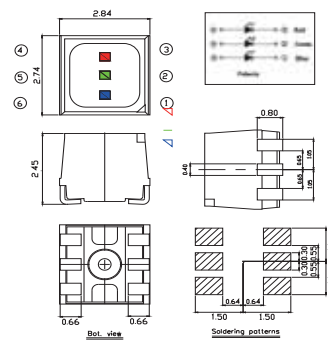


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
					Typ.	Max.		
HNA1515W-OS01	1.65x1.5x1.65 (4-pin)	● Red	614~629	250	1.9	2.4	10	110
		● Green	516~534	350	2.8	3.4	10	
		● Blue	465~480	50	2.8	3.4	5	

• Product Availability : Please visit EVERLIGHT website for more updated information ( [www.everlight.com](http://www.everlight.com) ) or contact EVERLIGHT sales for regional options.



UNIT : mm

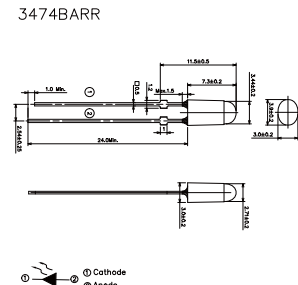
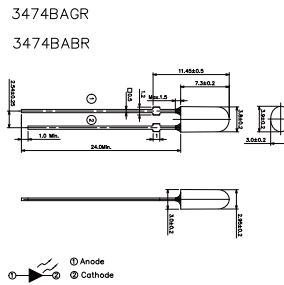


Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
					Typ.	Max.		
HNB2727W-OS05	2.7x2.8x2.45 (6-pin)	● Red	615~630	865	2.1	2.6	20	110
		● Green	526~535	1905	3.1	3.5	15	
		● Blue	465~480	295	3.1	3.5	10	

Signage LED | Lamp Type LED | 3mm Oval Type



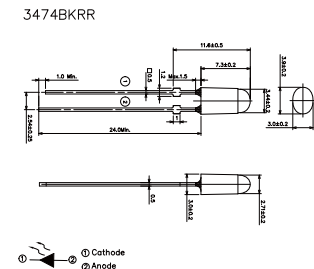
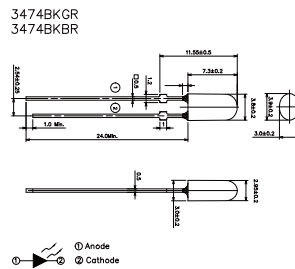
UNIT : mm



Product	Size (LxWxHmm)	Color	Lens Type	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
						Typ.	Max.		
3474BARR	3.9x3x7.3	Red	OVAL	619~629	1035	2.1	2.6	15	110°/60°
3474BAGR	3.9x3x7.3	Green	OVAL	520~535	2125	3.0	3.4	10	110°/60°
3474BABR	3.9x3x7.3	Blue	OVAL	460~475	420	3.0	3.4	10	110°/60°



UNIT : mm

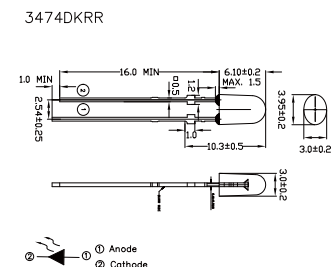
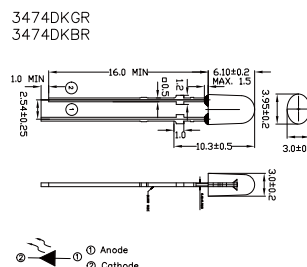


Product	Size (LxWxHmm)	Color	Lens Type	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
						Typ.	Max.		
3474BKRR/MS	3.9x3x7.3	Red	OVAL	619~629	1605	2.1	2.6	20	110°/60°
3474BKGR/MS	3.9x3x7.3	Green	OVAL	520~535	4635	3.0	3.4	20	110°/60°
3474BKBR/MS	3.9x3x7.3	Blue	OVAL	460~475	800	3.0	3.4	20	110°/60°

• Product Availability : Please visit EVERLIGHT website for more updated information ( [www.everlight.com](http://www.everlight.com) ) or contact EVERLIGHT sales for regional options.



UNIT : mm



Product	Size (LxWxHmm)	Color	Lens Type	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
						Typ.	Max.		
3474DKRR/MS	3.95x3x6.1	Red	OVAL	619~629	2800	2.1	2.6	20	90°/45°
3474DKGR/MS	3.95x3x6.1	Green	OVAL	520~535	6480	3.0	3.4	20	90°/45°
3474DKBR/MS	3.95x3x6.1	Blue	OVAL	460~475	1140	3.0	3.4	20	90°/45°

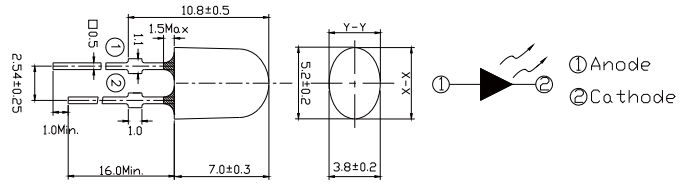
• Product Availability : Please visit EVERLIGHT website for more updated information ( [www.everlight.com](http://www.everlight.com) ) or contact EVERLIGHT sales for regional options.

Signage LED | Lamp Type LED | 5mm Oval Type



UNIT : mm

( With Stopper )



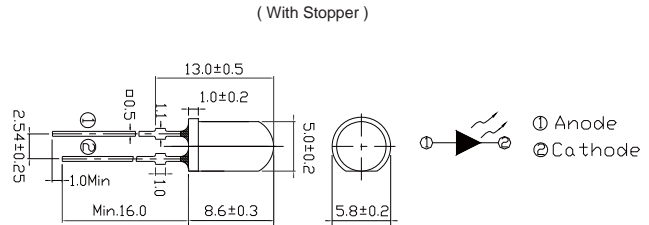
Product	Size (LxWxHmm)	Color	Lens Type	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
						Typ.	Max.		
5484BN/R7DC-AHJB/P/MS	5.2x3.8x7.0	● Red	Oval	619~628	1630	1.8	2.4	20	110 / 40
5484BN/GADC-AMNA/P/MS	5.2x3.8x7.0	● Green	Oval	525~535	3925	2.8	3.6	20	110 / 40
5484BN/BADC-AGJA/P/MS	5.2x3.8x7.0	● Blue	Oval	465~475	1085	2.8	3.6	20	110 / 40
5484BN/Y7DC-AHJB/P/MS	5.2x3.8x7.0	● Yellow	Oval	586~694	1440	1.8	2.2	20	110 / 40



Signage LED | Lamp Type LED | 5mm Round Type



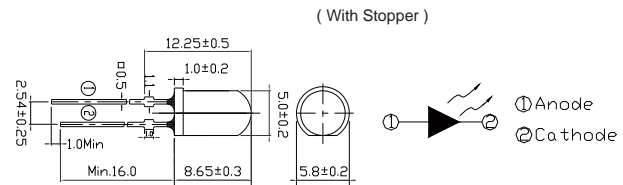
UNIT : mm



Product	Size (LxWxHmm)	Color	Lens Type	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
						Typ.	Max.		
333/R5C1-ATWB/MS	5.0x5.0x8.6	Red	Clear	620-628	11250	2	2.6	20	15
333/Y5C1-ATWB/MS	5.0x5.0x8.6	Yellow	Clear	586-594	11250	2	2.6	20	15
333/G1C1-AVYA/MS	5.0x5.0x8.6	Green	Clear	525-535	28500	3.2	3.6	20	15
333/B1C1-ARUA/MS	5.0x5.0x8.6	Blue	Clear	465-475	7150	3.2	3.6	20	15
333/V7C1-BVXA/MS	5.0x5.0x8.6	Green	Clear	499-507	14250	3.2	3.6	20	13



UNIT : mm

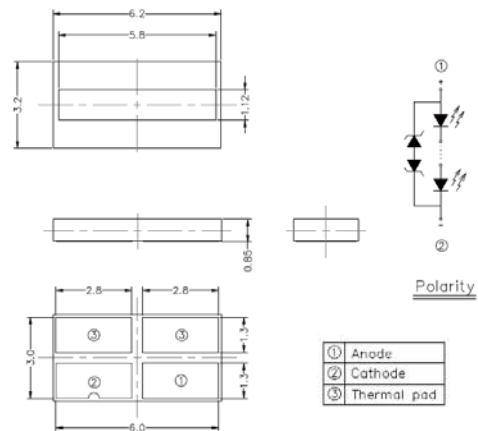


Product	Size (LxWxHmm)	Color	Lens Type	$\lambda_d$ (nm)	Typ. $I_v$ (mcd)	$V_F$ (V)		$I_F$ (mA)	Viewing Angle (°)
						Typ.	Max.		
7383/R7C3-ARUB/MS	5x5x8.7	Red	Clear	619-628	4000	2.0	2.6	20	30
7383/Y7C3-ARUB/MS	5x5x8.7	Yellow	Clear	619-628	7150	2.0	2.6	20	30
7383/G1C3-ATVA/MS	5x5x8.7	Green	Clear	586-594	4500	2.0	2.6	20	30
7383/BAC3-ANQA/MS	5x5x8.7	Blue	Clear	586-594	7150	2.0	2.6	20	30
7383/V7C3-ARTA/MS	5x5x8.7	Green	Clear	525-535	9000	3.2	3.6	20	30
7343/R5C2-ASUB/MS	5x5x8.7	Red	Clear	620-628	7150	2.0	2.6	20	23
7343/Y5C2-ASVB/MS	5x5x8.7	Yellow	Clear	586-594	9000	2.0	2.6	20	23
7344/V7C2-ASVA/MS	5x5x8.7	Green	Clear	498-513	7150	3.2	3.6	20	20
7343/G1C2-AUWA/MS	5x5x8.7	Green	Clear	525-535	14250	3.2	3.6	20	23
7343/B1C2-APSA/MS	5x5x8.7	Blue	Clear	465-475	4500	3.2	3.6	20	23

Automotive LED | Exterior Application | High Power LED



UNIT : mm



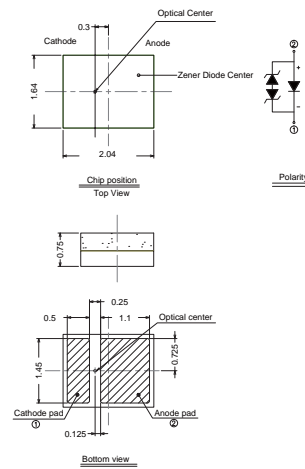
ALFS-B

Product	Size (LxWxHmm)	Color	CIE(K)	I <sub>v</sub> Min. (lm)	I <sub>v</sub> Max. (lm)	V <sub>F</sub> Min. (V)	V <sub>F</sub> Max. (V)	I <sub>F</sub> (mA)	Viewing Angle (°)
ALFS5BD-C010001L1-AM	6.2x3.2x0.85	○ White	5180K-6680K	1500	1900	14.5	18.85	1000	120
ALFS4BD-C010001L1-AM	6.2x3.2x0.85	○ White	5180K-6680K	1240	1600	11.6	15.95	1000	120
ALFS3BD-C010001L1-AM	4.0x2.4x0.85	○ White	5180K-6680K	800	1100	8.7	11.25	1000	120
ALFS2BD-C010001L1-AM	2.9x2.4x0.85	○ White	5180K-6680K	550	750	5.8	7.6	1000	120
ALFS1BD-C007001L1-AM	1.64x2.04x0.85	○ White	5180K-6680K	200	280	2.9	3.75	700	120

Automotive LED | Exterior Application | High Power LED

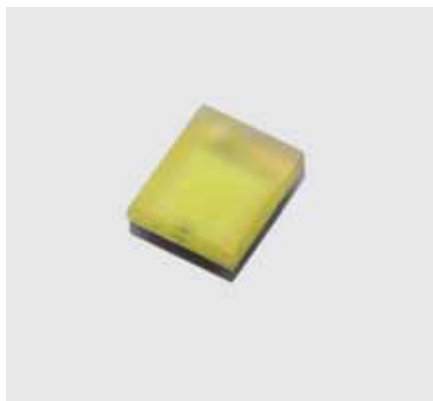


UNIT : mm

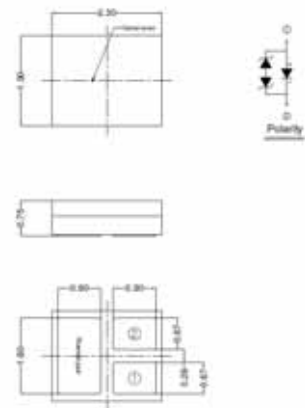


EL Compact 2016

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CCT(K)/CIE	$I_V$ Min. (lm)	$I_V$ Max. (lm)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
CH2016E-C07001L-AM	2.04x1.64x0.75	○ White	5180~6680K	150	275	3.0	3.75	700	120
CH2016-UR3501H-AM	2.04x1.64x0.75	● Red	615-627nm	39	70	2.25	3.0	350	130



UNIT : mm



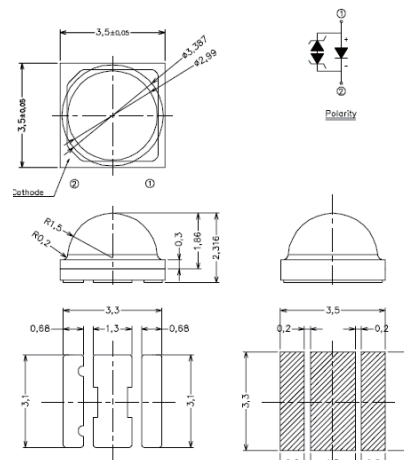
EL 2319

Product	Size (LxWxHmm)	Color	CCT(K)/CIE	$I_V$ Min. (lm)	$I_V$ Max. (lm)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
CH2319-C07001H-AM	2.3x1.9x0.75	○ White	5180K-6680K	225	325	2.75	4	700	140
CH2319-PA07001H-AM	2.3x1.9x0.75	● PC-Amber	X0.57, Y0.42	130	180	2.75	3.5	700	120
CH2319-PR03501H-AM	2.3x1.9x0.75	● PC Red	X0.673, Y0.318	33	52	2.75	3.5	700	120

Automotive LED | Exterior Application | High Power LED



UNIT : mm

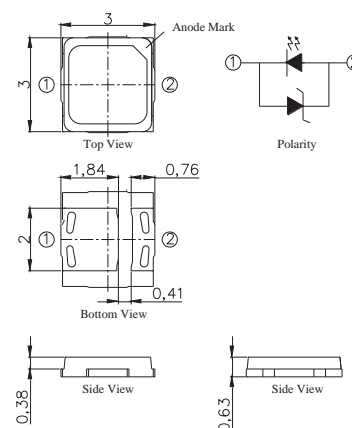


EL 3535E

Product	Size (LxWxH)mm	Color	$\lambda_d$ (nm)/ CCT(K)/CIE	$I_v$ Min. (lm)	$I_v$ Max. (lm)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
CH3535E-C03501L-AM	3.5x3.5x2.3	○ White	5180~6680K	120	160	3.0	4.0	350	120
CH3535E-UR3501L-AM	3.5x3.5x2.3	● Red	615~627nm	60	100	1.75	2.5	350	120
CH3535E-PA3501H-AM	3.5x3.5x2.3	● PC-Amber	X0.57,Y0.42	80	140	2.75	3.5	350	120



UNIT : mm



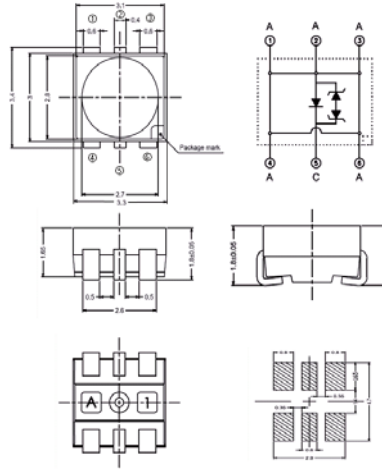
EL 3030E

Product	Size (LxWxH)mm	Color	$\lambda_d$ (nm)/ CCT(K)/ CIE	$I_v$ Min. (lm)	$I_v$ Max. (lm)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
XI3030-C03501H-AM	3.0x3.0x0.63	○ White	5180~6680K	100	150	2.5	3.5	350	120
XI3030-UR3501H-AM	3.0x3.0x0.63	● Red	606-621nm	39	70	1.75	3.0	350	120
XI3030-PA3501H-AM	3.0x3.0x0.63	● PC-Amber	X0.575,Y0.415	52	90	2.5	3.5	350	120

Automotive LED | Exterior Application | Mid Power LED



UNIT : mm



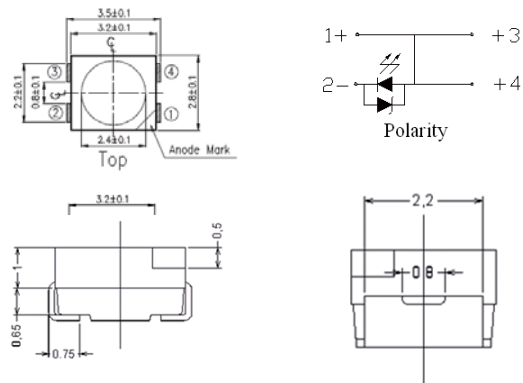
EL Advanced Power Top View

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CCT(K)/CIE	$I_v$ Min. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
A09K-C71501H-AM	3.4x3.3x1.8	○ White	5180~6680K	7100	14000	2.75	3.75	150	120
A09K-UR1501H-AM	3.4x3.3x1.8	● Red	612~624nm	4500	9000	1.75	2.75	150	120
A09K-SR1501H-AM	3.4x3.3x1.8	● Super Red	627~639nm	3550	7100	1.75	2.75	150	120
A09K-UY1501H-AM	3.4x3.3x1.8	● Yellow	582~594nm	3550	7100	1.75	2.75	150	120
A09K-PA1501H-AM	3.4x3.3x1.8	● PC-Amber	X 0.57, Y 0.42	5600	11200	2.75	3.75	150	120

Automotive LED | Exterior Application | Low Power LED



UNIT : mm

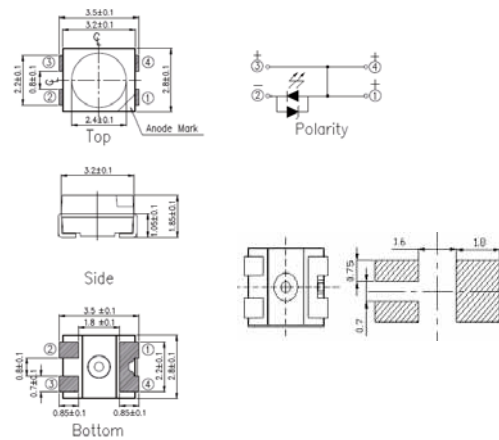


EL Power Top View PLCC-4

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CCT(K)	$I_v$ Min. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
67-41-C70301H-AM	3.5x2.8x1.85	○ White	5180~6680K	2240	4500	2.75	3.75	30	120
67-41-UR0501H-AM	3.5x2.8x1.85	● Red	612~624nm	1800	3550	1.75	2.75	50	120
67-41-SR0501H-AM	3.5x2.8x1.85	● Super Red	627~639nm	1400	2240	1.75	2.75	50	120
67-41-UY0501H-AM	3.5x2.8x1.85	● Yellow	585~594nm	1400	2800	1.75	2.75	50	120



UNIT : mm



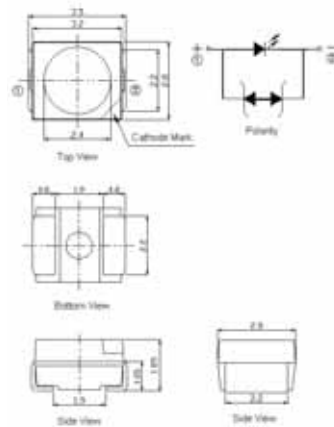
EL Power Top View PLCC-3

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CCT(K)	$I_v$ Min. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
67-31-C70301H-AM	3.5x2.8x1.85	○ White	5180~6680K	2240	4500	2.75	3.75	30	120
67-31-UR0501H-AM	3.5x2.8x1.85	● Red	612~624nm	1800	3550	1.75	2.75	50	120
67-31-UY0501H-AM	3.5x2.8x1.85	● Yellow	585~594nm	1400	2800	1.75	2.75	50	120

Automotive LED | Exterior Application | Low Power LED



UNIT : mm

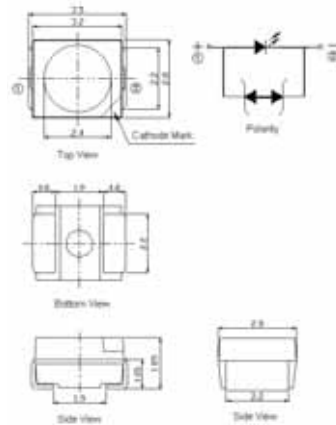


EL Top View

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE	$I_V$ Min. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
67-11-C70201H-AM	3.5x2.8x1.85	○ White	X=0.227~0.365 Y=0.205~0.408	1400	3550	2.75	3.75	20	120
67-21-UR0201H-AM	3.5x2.8x1.85	● Red	612~624nm	710	1400	1.75	2.75	20	120
67-21-UY0201H-AM	3.5x2.8x1.85	● Yellow	585~594nm	710	1400	1.75	2.75	20	120



UNIT : mm



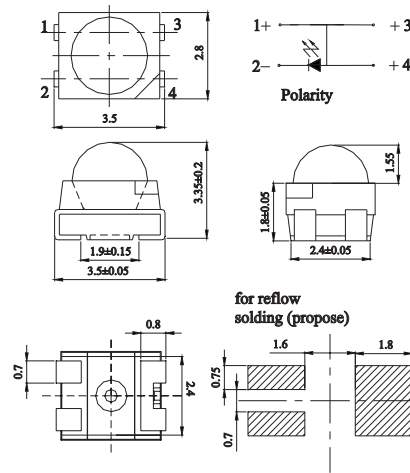
EL Top View

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/CIE(K)	$I_V$ Min. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
67-11-C70200H-AM	3.5x2.8x1.85	○ White	X=0.227~0.365 Y=0.205~0.408	1400	3550	2.75	3.75	20	120
67-11-IB0100L-AM	3.5x2.8x1.85	○ Ice Blue	X=0.132~0.245 Y=0.117~0.360	224	710	2.75	3.75	10	120
67-11-SB0100L-AM	3.5x2.8x1.85	● Sky Blue	X=0.143~0.180 Y=0.055~0.109	224	560	2.75	3.75	10	120
67-11-UB0200H-AM	3.5x2.8x1.85	● Blue	463~475nm	224	560	2.75	3.75	20	120
67-11-UG0200H-AM	3.5x2.8x1.85	● Green	520~535nm	710	1400	2.75	3.75	20	120
67-21-UR0200H-AM	3.5x2.8x1.85	● Red	618~627nm	710	1400	1.75	2.75	20	120
67-21-UR0200L-AM	3.5x2.8x1.85	● Red	618~630nm	140	450	1.75	2.75	20	120
67-21-UY0200H-AM	3.5x2.8x1.85	● Yellow	585~594nm	710	1400	1.75	2.75	20	120
67-21-UY0200L-AM	3.5x2.8x1.85	● Yellow	582~594nm	140	450	1.75	2.75	20	120

Automotive LED | Exterior Application | Low Power LED



UNIT : mm



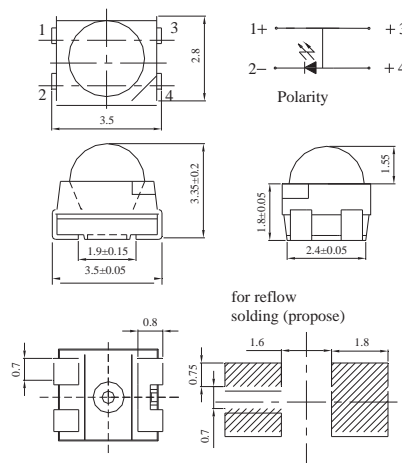
EL Top View Lens 30°

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	$I_V$ Min. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
67-31EP3-UR0500H-AM	3.5x2.8x3.35	● Red	612~624nm	5600	18000	1.75	2.75	50	30
67-31EP3-UY0500H-AM	3.5x2.8x3.35	● Yellow	582~594nm	5600	18000	1.75	2.75	50	30

Automotive LED | Interior Application | Low Power LED



UNIT : mm



EL Top View Lens 60°

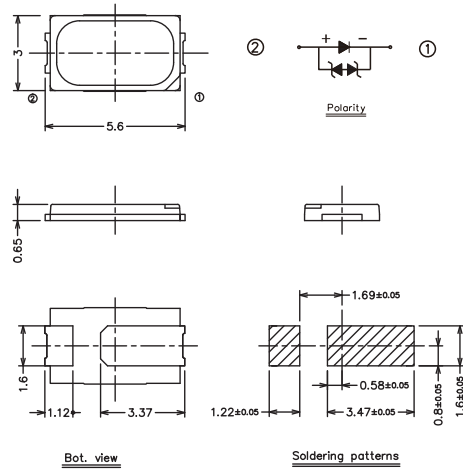
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	$I_V$ Min. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
67-31EP6-UR0500H-AM	3.5x2.8x3.35	● Red	612~624nm	3550	11200	1.75	2.75	50	60
67-31EP6-UY0500H-AM	3.5x2.8x3.35	● Yellow	582~594nm	2800	9000	1.75	2.75	50	60



Automotive LED | Interior Application | Low Power LED

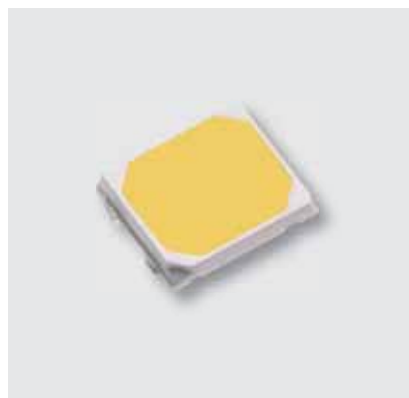


UNIT : mm

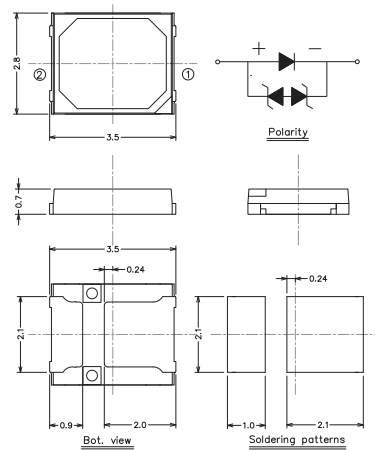


EL 5630D

Product	Size (LxWxHmm)	Color	CCT(K)	I <sub>v</sub> Min. (lm)	I <sub>v</sub> Max. (lm)	V <sub>F</sub> Min. (V)	V <sub>F</sub> Max. (V)	I <sub>F</sub> (mA)	Viewing Angle (°)
62-117D-W80650H-AM	5.6x3.0x0.65	○ White	2700~3500K	24	40	2.5	3.5	65	120
62-117D-N80650H-AM	5.6x3.0x0.65	○ White	4000~4500K	24	40	2.5	3.5	65	120
62-117D-C80650H-AM	5.6x3.0x0.65	○ White	5000~6500K	24	40	2.5	3.5	65	120



UNIT : mm



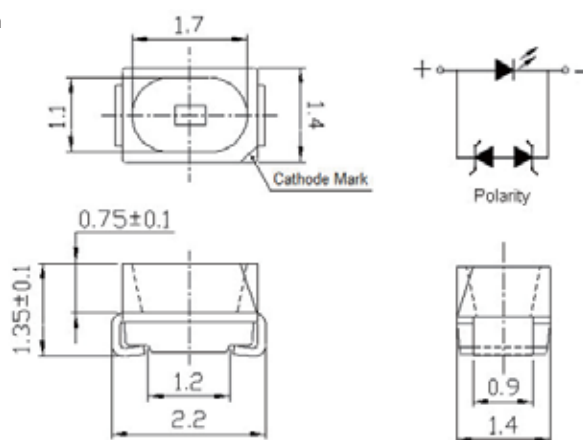
EL 2835

Product	Size (LxWxHmm)	Color	CCT(K)	I <sub>v</sub> Min. (mcd)	I <sub>v</sub> Max. (mcd)	V <sub>F</sub> Min. (V)	V <sub>F</sub> Max. (V)	I <sub>F</sub> (mA)	Viewing Angle (°)
67-11S-W81000H-AM	2.8x3.5x0.7	○ White	2700~3500K	35	50	2.5	3.5	100	120
67-11S-N81000H-AM	2.8x3.5x0.7	○ White	4000~4500K	35	50	2.5	3.5	100	120
67-11S-C81000H-AM	2.8x3.5x0.7	○ White	5000~6500K	35	50	2.5	3.5	100	120

Automotive LED | Interior Application | Low Power LED



UNIT : mm



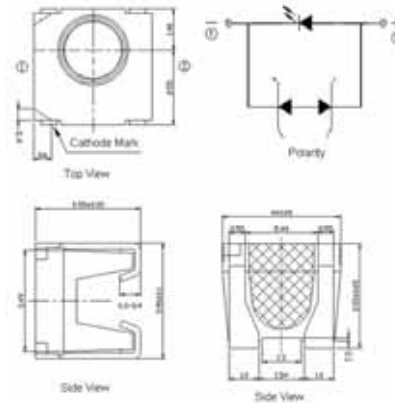
EL Mini Top View

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(K)	$I_v$ Min. (mcd)	$I_v$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
65-11-C70200H-AM	2.2x1.4x1.35	○ White	X=0.227~0.365 Y=0.205~0.408	1400	3550	2.75	3.75	20	120
65-11-IB0100L-AM	2.2x1.4x1.35	○ Ice Blue	X=0.132~0.245 Y=0.117~0.360	224	710	2.75	3.75	10	120
65-11-SB0100L-AM	2.2x1.4x1.35	● Sky Blue	X=0.143~0.180 Y=0.055~0.109	224	560	2.75	3.75	10	120
65-11-UB0200L-AM	2.2x1.4x1.35	● Blue	463~475nm	224	560	2.75	3.75	20	120
65-11-UG0200H-AM	2.2x1.4x1.35	● Green	520~535nm	710	1400	2.75	3.75	20	120
65-21-UR0200H-AM	2.2x1.4x1.35	● Red	618~627nm	710	1400	1.75	2.75	20	120
65-21-UY0200H-AM	2.2x1.4x1.35	● Yellow	585~594nm	710	1400	1.75	2.75	20	120

Automotive LED ■ Interior Application ■ Low Power LED



UNIT : mm



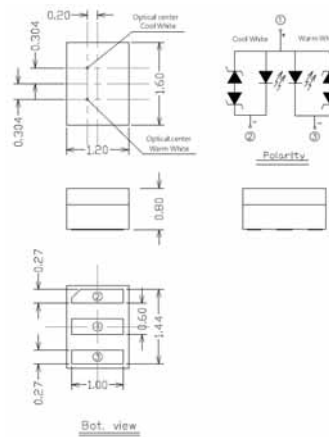
EL Side View

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)/ CIE(K)	$I_V$ Min. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
57-11-C70200H-AM	4.0x4.0x3.55	○ White	X: 0.258-0.3582 Y: 0.227-0.3792	900	2240	2.75	3.75	20	120
57-11-IB0100L-AM	4.0x4.0x3.55	○ Ice Blue	X: 0.1324-0.2395 Y: 0.1201-0.3605	140	560	2.75	3.75	10	120
57-11-SB0100L-AM	4.0x4.0x3.55	● Sky Blue	X: 0.1378-0.1700 Y: 0.0620-0.1252	140	560	2.75	3.75	10	120
57-11-UB0200H-AM	4.0x4.0x3.55	● Blue	463nm~475nm	224	560	2.75	3.75	20	120
57-21-UR0200H-AM	4.0x4.0x3.55	● Red	618nm~627nm	710	1400	1.75	2.75	20	120
57-21-JY0200H-AM	4.0x4.0x3.55	● Yellow	585nm~594nm	710	1400	1.75	2.75	20	120

Automotive LED | Interior Application | Low Power LED



UNIT : mm

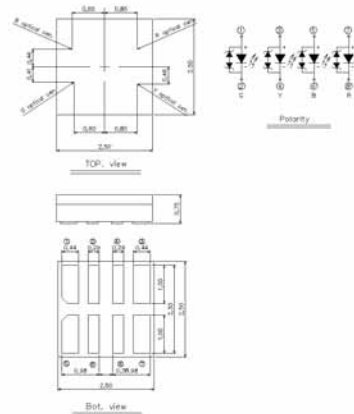


EL Micro Multi

Product	Size (LxWxHmm)	Color	CCT(K)	I <sub>v</sub> Min. (mcd)	I <sub>v</sub> Max. (mcd)	V <sub>F</sub> Min. (V)	V <sub>F</sub> Max. (V)	I <sub>F</sub> (mA)	Viewing Angle (°)
CH1216-C8W80801H-AM	1.2x1.6x0.8	CW/WW	CW: 5180K-6680K WW: 2700K-3000K	CW: 20 WW: 20	CW: 33 WW: 33	2.75	3.5	80	120



UNIT : mm



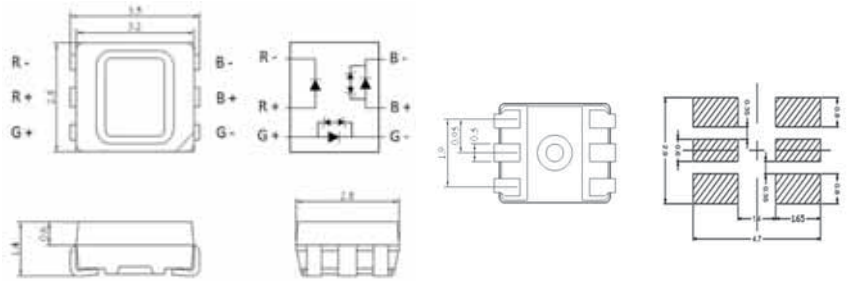
EL Multi Color

Product	Size (LxWxHmm)	Color	λ <sub>d</sub> (nm)	I <sub>v</sub> Min. (mcd)	I <sub>v</sub> Max. (mcd)	V <sub>F</sub> Min. (V)	V <sub>F</sub> Max. (V)	I <sub>F</sub> (mA)	Viewing Angle (°)
CH2525-RGBY0201H-AM	2.5x2.5x0.75	R/G/B/Y	R: 615-627 G: 515-535 B: 451-467 Y: 585-597	R: 450 G: 1120 B: 140 Y: 450	R: 900 G: 2240 B: 280 Y: 900	R: 1.75 G: 2.25 B: 2.75 Y: 2.00	R: 2.75 G: 3.5 B: 3.75 Y: 2.75	20	140

Automotive LED | Interior Application | Low Power LED



UNIT : mm

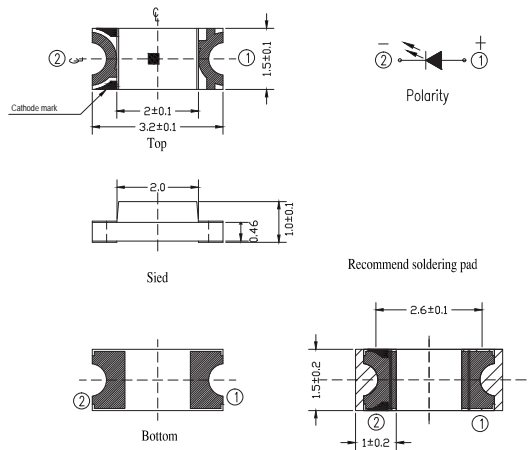


EL Top View RGB

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	I <sub>v</sub> Min. (mcd)	I <sub>v</sub> Max. (mcd)	V <sub>F</sub> Min. (V)	V <sub>F</sub> Max. (V)	I <sub>F</sub> (mA)	Viewing Angle (°)
67-63-RGB0201H-AM	3.5x2.8x1.4	<ul style="list-style-type: none"> <li><span style="color: red;">●</span> Red</li> <li><span style="color: green;">●</span> Green</li> <li><span style="color: blue;">●</span> Blue</li> </ul>	621~636nm 520~535nm 447~471nm	560 1120 180	1120 1800 450	1.75 2.75 2.75	2.75 3.75 3.75	20	120



UNIT : mm



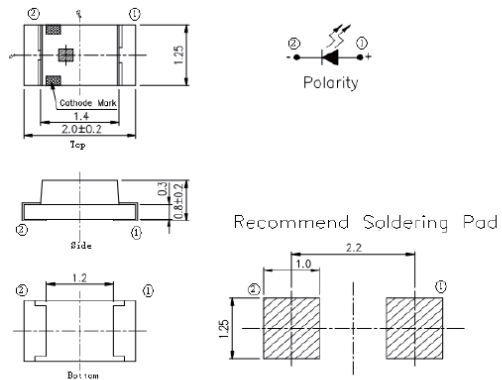
1206

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	I <sub>v</sub> Min. (mcd)	I <sub>v</sub> Max. (mcd)	V <sub>F</sub> Min.(V)	V <sub>F</sub> Max. (V)	I <sub>F</sub> (mA)	Viewing Angle (°)
15-21-G6C-A0N1P2B0E-2T-AM	3.2x1.5x1.0	<span style="color: yellow;">●</span> Yellow Green	569.5~577.5nm	28	71	1.75	2.35	20	130
15-21-R6C-B0Q1R2B0E-2T8-AM	3.2x1.5x1.0	<span style="color: red;">●</span> Red	617.5~629.5nm	71	180	1.75	2.35	20	130
15-21-Y2SC-A0S1T1B25E-2T-AM	3.2x1.5x1.0	<span style="color: yellow;">●</span> Yellow	585.5~594.5nm	180	355	1.7	2.4	20	130

Automotive LED | Interior Application | Low Power LED



UNIT : mm

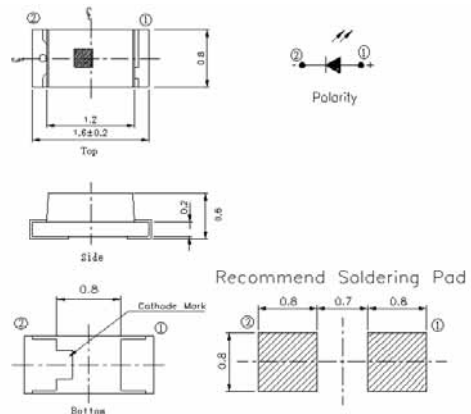


0805

Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	$I_V$ Min. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
17-215-G6C-F5M1N2B0E-3T-AM	2.0x1.25x0.8	● Yellow Green	568~574nm	18	45	1.75	2.35	20	130
17-215-R6C-A0Q2R2B0E-3T-AM	2.0x1.25x0.8	● Red	617.5~633.5nm	90	180	1.75	2.35	20	130
17-215-S3C-5UQ2R2B0E-3T-AM	2.0x1.25x0.8	● Orange	611~619nm	90	180	1.75	2.35	20	130
17-215-Y2C-P9Q2S1B0E-3T-AM	2.0x1.25x0.8	● Yellow	584~596nm	90	224	1.75	2.35	20	130



UNIT : mm



0603

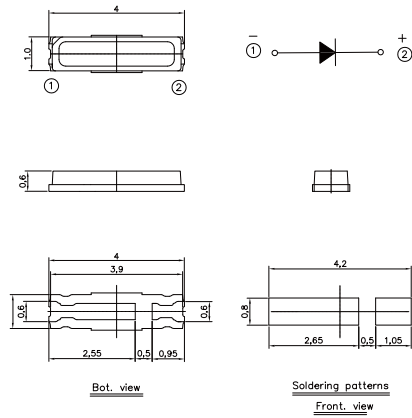
Product	Size (LxWxHmm)	Color	$\lambda_d$ (nm)	$I_V$ Min. (mcd)	$I_V$ Max. (mcd)	$V_F$ Min. (V)	$V_F$ Max. (V)	$I_F$ (mA)	Viewing Angle (°)
19-213-G6SC-M0P1Q1B0E-3T-AM	1.6x0.8x0.6	● Yellow Green	569.5~575.5nm	45	90	1.75	2.35	20	120
19-213-R6C-A0R2S2B0E-3T-AM	1.6x0.8x0.6	● Red	617.5~633.5nm	140	280	1.75	2.35	20	120
19-213-S3SC-B0S1T1B0E-3T-AM	1.6x0.8x0.6	● Orange	613.5~621.5nm	180	355	1.75	2.35	20	120
19-213-Y2SC-9AS1T1B0E-3T-AM	1.6x0.8x0.6	● Yellow	589~595nm	180	355	1.75	2.35	20	120

Backlighting LED | TV/Monitor

Application/ TFT Edge



UNIT : mm

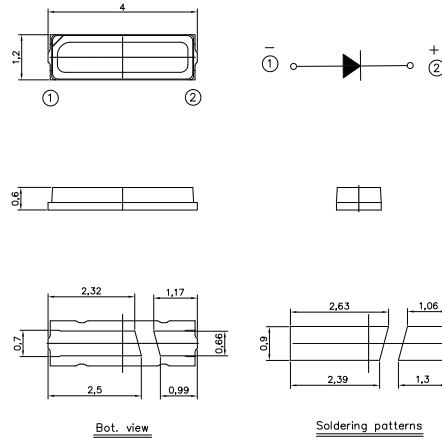


4010

Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
50-415	4.0x1.0x0.5	○ White	0.2	(0.28,0.26)	18-28	2.7-3.4	120



UNIT : mm



4012

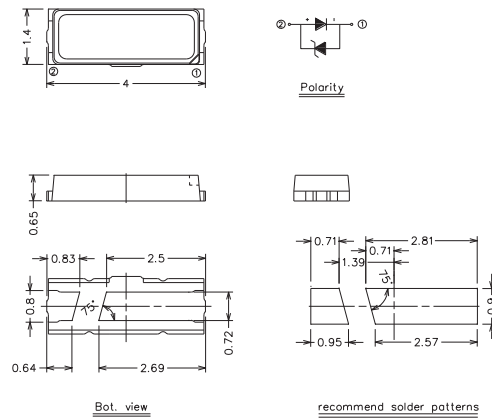
Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
50-515	4.0x1.2x0.6	○ White	0.4	(0.28,0.26)	36-46	2.7-3.4	120

Backlighting LED ITV/Monitor

Application/ TFT Edge



UNIT : mm

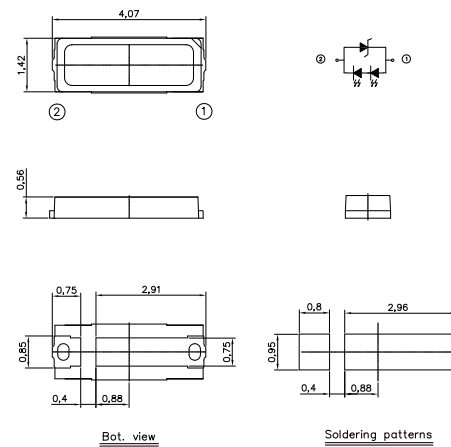


4014

Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
50-315C	4.0x1.4x0.65	○White	0.4	(0.28,0.26)	38-48	2.7-3.4	120



UNIT : mm



4014

Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
50-625P	4.0x1.4x0.56	○White	0.8	(0.28,0.26)	86-98	5.8-6.4	120

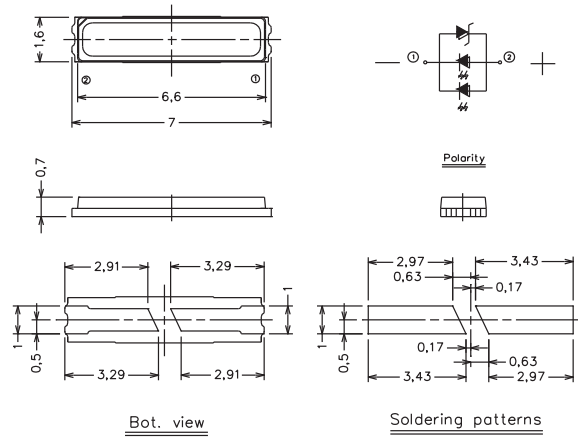


Backlighting LED | TV/Monitor

Application/ TFT Edge



UNIT : mm

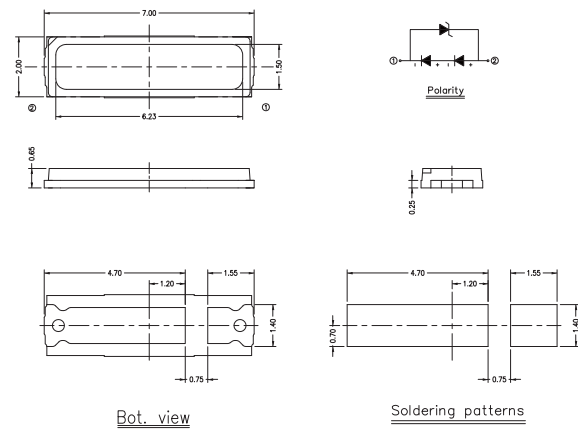


7016

Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
62-125	7.0x1.6x0.7	○ White	0.8	(0.28,0.26)	86-96	2.7-3.4	120



UNIT : mm

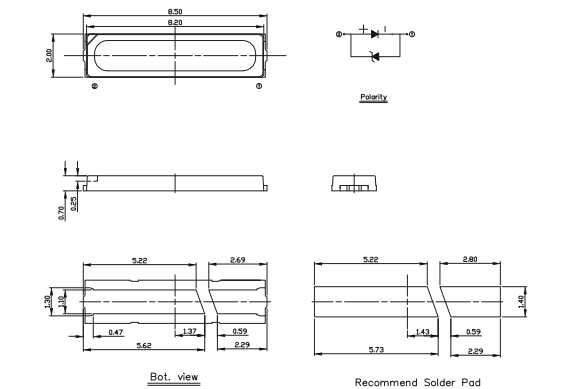


7020

Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
62-129P	7.0x2.0x0.65	○ White	0.93	(0.28,0.26)	106-116	5.8-6.4	120



UNIT : mm

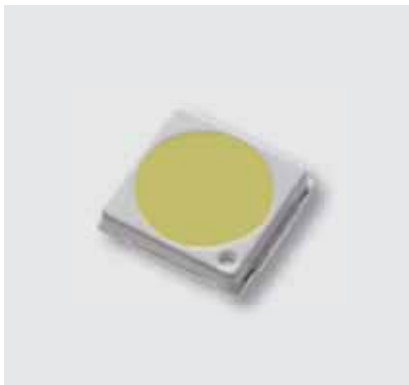


8520

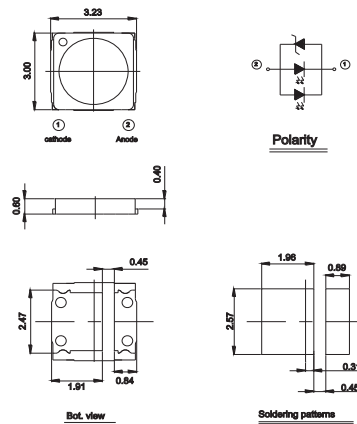
Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
62-112	8.5x2.0x0.7	○ White	0.4	(0.28,0.26)	26-36	2.7-3.4	120

Backlighting LED ITV/Monitor

Application/ TFT Direct

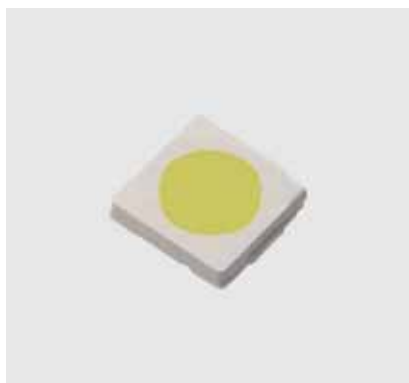


UNIT : mm

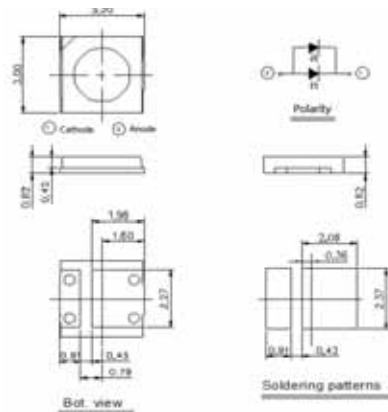


3030 Punch 2.5φ

Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	lv (lm)	VF (V)	Viewing Angle(°)
62-123PAUN3W/F120135VM68PBD-T	3.0x3.0x0.8	○ White	1.8	(0.2735,0.2293)	140-170	3.0-3.6	120



UNIT : mm



3030 punch 2.1φ

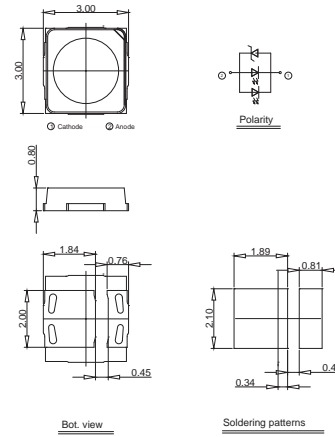
Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	lv (lm)	VF (V)	Viewing Angle(°)
3030 2.1φ	30x30x0.8	○ White	1.8	(0.2735,0.2293)	135-165	3-3.6	120

Backlighting LED | TV/Monitor

Application/TFT Direct



UNIT : mm

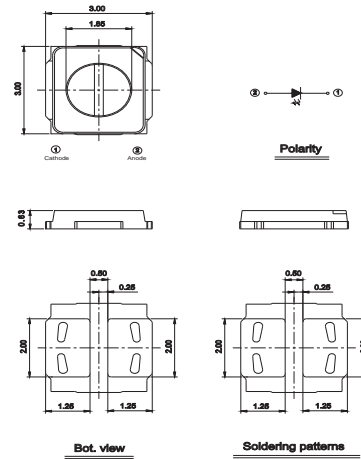


3030 Punch 2.3  $\phi$

Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle( $^{\circ}$ )
62-223PUNC/F125150ZM35SBE-T	3.0x3.0x0.8	○White	1.8	(0.2735,0.2293)	135-165	3-3.6	120



UNIT : mm



3030FC Punch 1.8  $\phi$

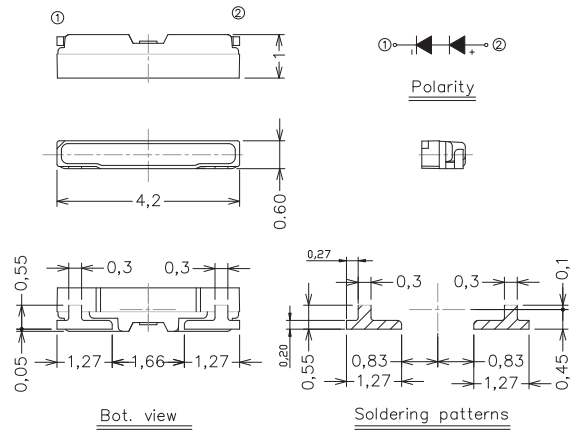
Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle( $^{\circ}$ )
S3030FPBUD2C/F120145N37BF-T	3.0x3.0x0.63	○White	1.65	(0.2735,0.2293)	120-160	3.0-3.6	120

Backlighting LED | Portable

Application/ Side View



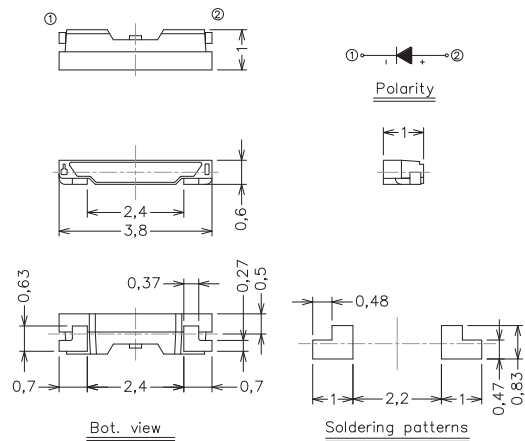
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
99-826	4.2x1x0.6	White	0.12	X=0.295,Y=0.28	14-17	5.4-6.8	120



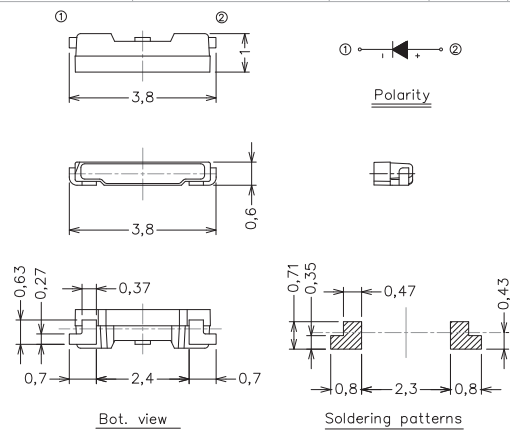
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
99-616	3.8x1.0x0.6	White	0.06	X=0.295,Y=0.28	6.0 0-8.00	2.7-3.4	120



UNIT : mm

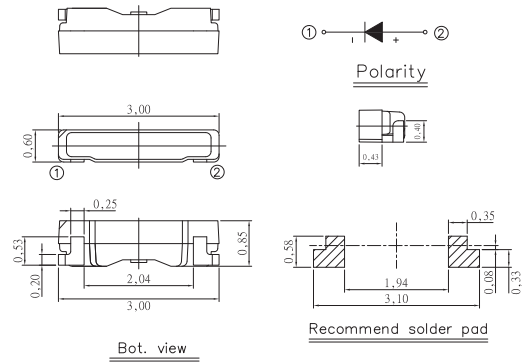


Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
99-616K	3.8x1.0x0.6	White	0.06	X=0.295,Y=0.28	7.00-9.00	2.7-3.4	120

Backlighting LED | Portable  
Application/ Side View



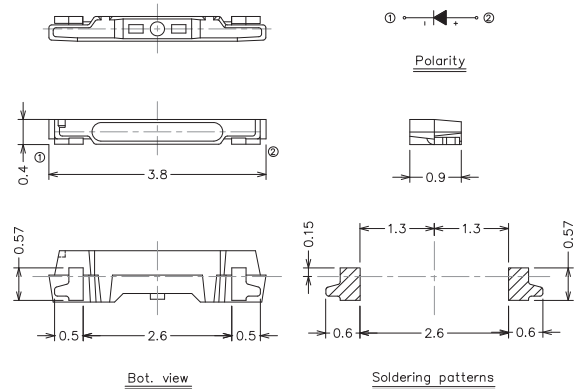
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
3006	3.0x0.85x0.6	White	0.06	X=0.295,Y=0.28	6.75-9.00	2.7-3.4	120



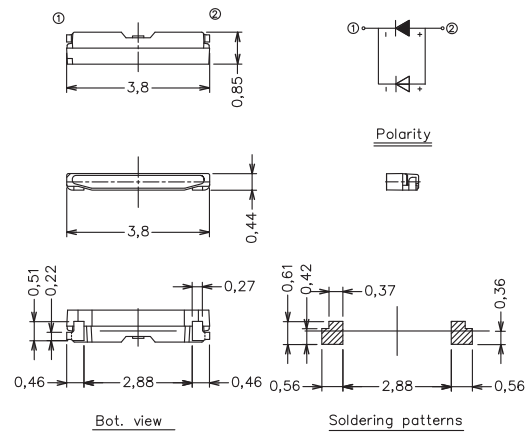
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
99-218G	3.8x0.9x0.4	White	0.06	X=0.295,Y=0.28	6.25-9.00	2.7-3.4	120



UNIT : mm

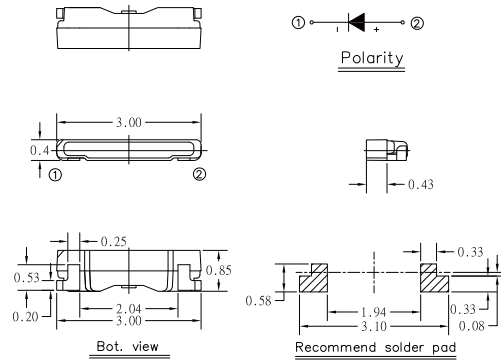


Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
99-228T	3.8x0.85x0.4	White	0.06	X=0.295,Y=0.28	6.25-9.00	2.7-3.2	120

Backlighting LED | Portable  
Application/ Side View



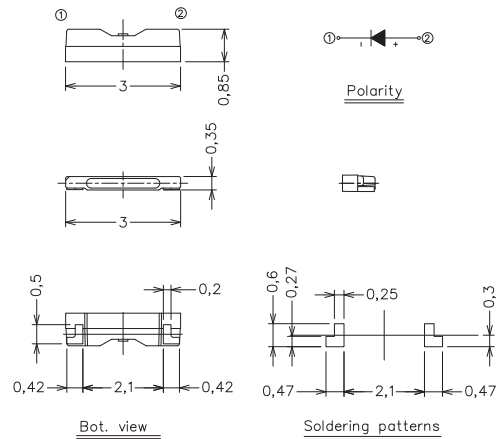
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
3004	3.0x0.85x0.4	White	0.06	X=0.295,Y=0.28	6.25-8.50	2.7-3.4	115



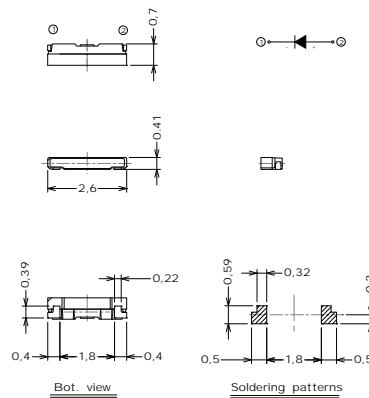
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
3003	3.0x0.85x0.3	White	0.06	X=0.295,Y=0.28	5.25-7.75	2.7-3.4	115



UNIT : mm

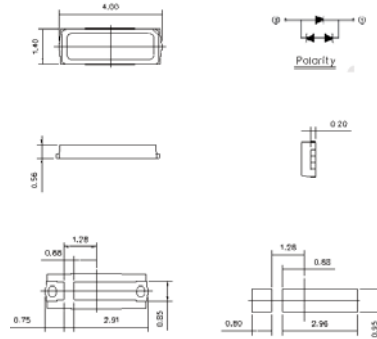


Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
2604	2.6x0.7x0.4	White	0.06	X=0.295, Y=0.28	5.50-8.25	2.7-3.4	115

Backlighting LED | Automotive  
Application/ Automotive backlight



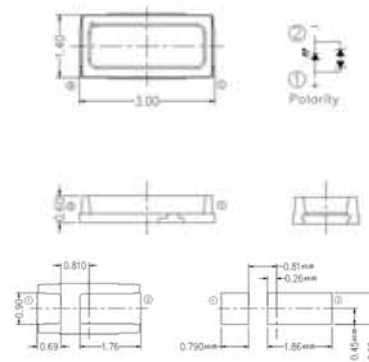
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
50-615P	4.0x1.4x0.56	White	0.36	X=0.295, Y=0.272	22-56	2.8-3.3	120



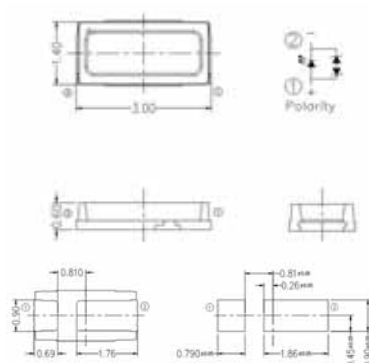
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (lm)	VF (V)	Viewing Angle(°)
3014U	3.0x1.4x0.6	White	0.36	X=0.295, Y=0.272	22-44	2.7-3.4	120



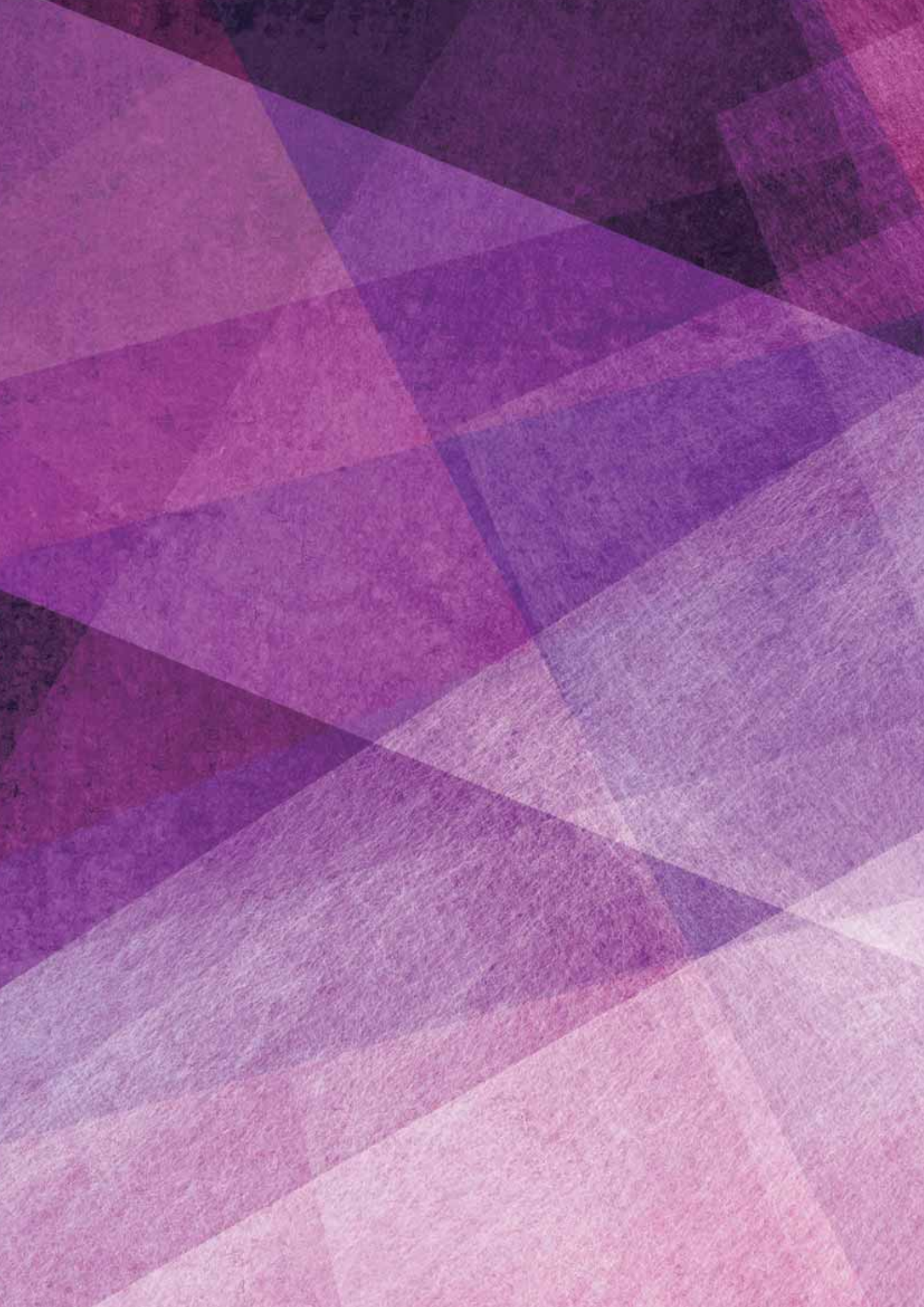
UNIT : mm



Product	Size (LxWxHmm)	Color	Power(W)	CIE(x,y)	Iv (mW)	VF (V)	Viewing Angle(°)
3014U	3.0x1.4x0.6	Blue	0.36	-	120-180	2.7-3.4	120







# INFRARED LED, SENSORS, COUPLERS

**178** INFRARED LED AND SILICON DETECTOR

**214** INFRARED RECEIVER MODULE

**224** OPTIC-FIBER DEVICE ( PHOTO LINK )

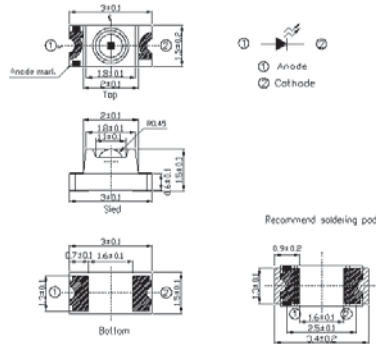
**232** OPTICAL SENSOR

**248** PHOTO COUPLER

Infrared LED and Silicon Detector | Emitter | SMD



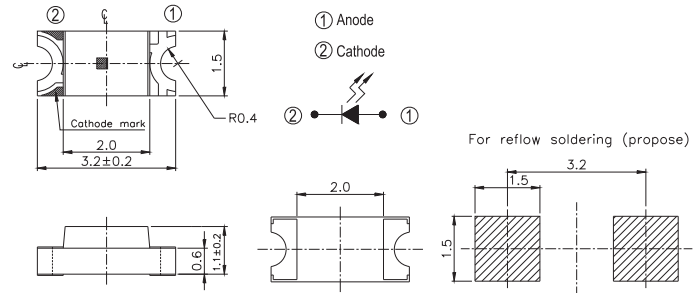
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR11-21C/TR8	3x1.5x1.5	940	1.2	1.5	0.5	1.6	100
IR11-21C/L491/TR8	3x1.5x1.5	940	1.3	1.7	1.0	4.0	80
HIR11-21C/L11/TR8	3x1.5x1.5	850	1.45	1.65	1	2	75
SIR11-21C/L294/TR8	3x1.5x1.5	870	1.4	1.5	1.3	2.6	100



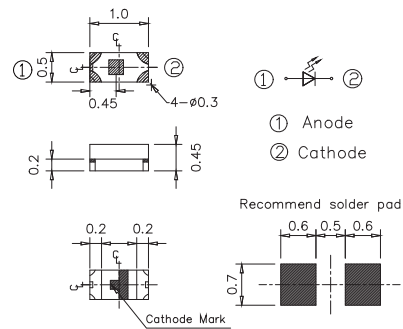
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR15-21C/TR8	3.2x1.5x1.1	850	1.45	1.65	0.5	1.5	150
IR15-21C/TR8	3.2x1.5x1.1	940	1.2	1.5	0.2	0.8	160
PIR15-21C/TR8	3.2x1.5x1.1	800	1.45	1.80	0.90	-	135

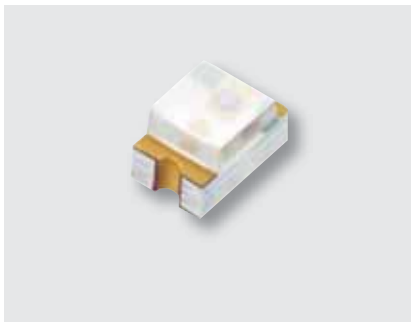


UNIT : mm

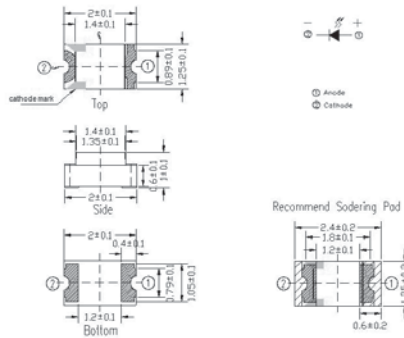


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR16-213C/L510/TR8	1x0.5x0.45	940	1.5	1.9	0.5	2.35	120
HIR16-213C/L423/TR8	1x0.5x0.45	850	1.45	1.65	0.50	1.50	145

Infrared LED and Silicon Detector | Emitter | SMD



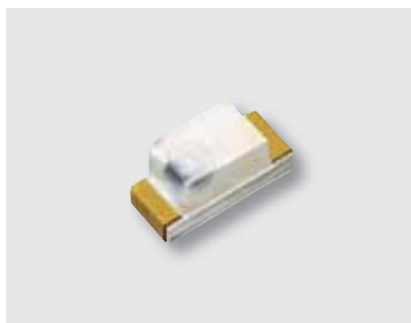
UNIT : mm



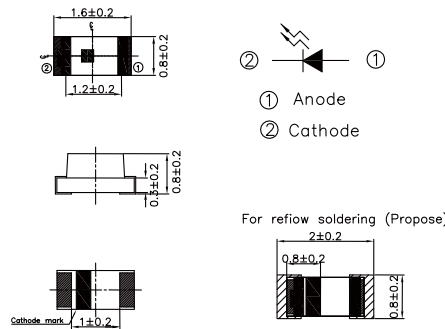
⊕ Anode  
⊖ Cathode

Recommend Soldering Pad

Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR17-21C/TR8	2x1.25x1.0	940	1.2	1.5	0.2	0.8	120
HIR17-21C/TR8	2x1.25x1.0	850	1.45	1.65	0.5	2	120
HIR17-21C/L289/TR8	2x1.25x1.0	850	1.4	1.7	1.6	2.1	120



UNIT : mm



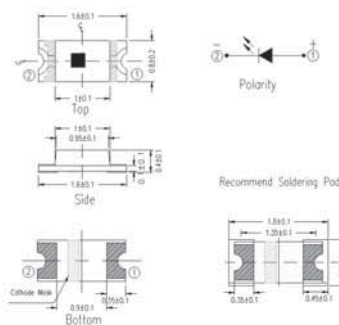
⊕ Anode  
⊖ Cathode

For reflow soldering (Propose)

Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR19-21C/TR8	1.6x0.8x0.8	940	1.2	1.5	0.2	0.7	150
SIR19-21C/TR8	1.6x0.8x0.8	875	1.3	1.6	0.2	0.5	145
HIR19-21C/L11/TR8	1.6x0.8x0.8	850	1.45	1.65	0.2	0.8	145
HIR19-21C/L289/TR8	1.6x0.8x0.8	850	1.4	1.7	1.0	1.85	145



UNIT : mm



Polarity

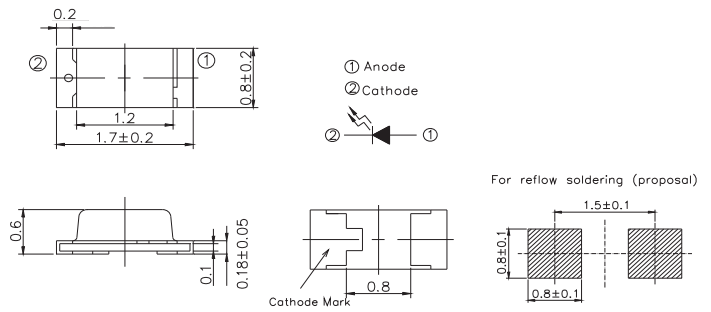
Recommend Soldering Pad

Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR19-217C/TR8	1.6x0.8x0.4	940	1.20	1.50	0.20	0.80	160

Infrared LED and Silicon Detector | Emitter | SMD



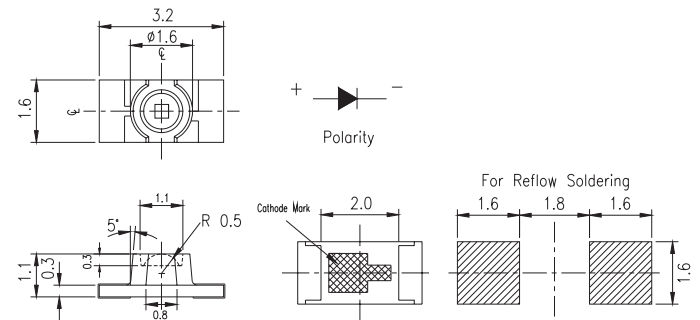
UNIT : mm



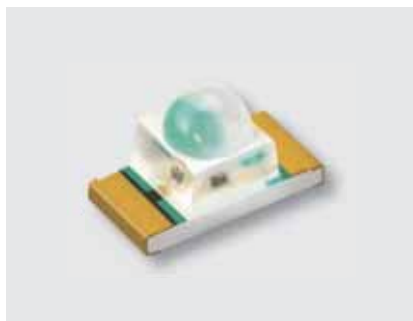
Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR19-315C/TR8	1.7x0.8x0.6	940	1.2	1.5	0.2	0.6	140
HIR19-315C/L289/TR8	1.7x0.8x0.6	850	1.40	1.70	1.00	1.80	125
SIR19-315C/TR8	1.7x0.8x0.6	870	1.35	1.70	1.00	1.30	140



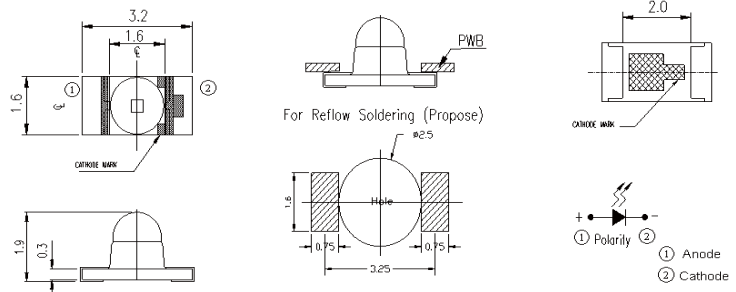
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR25-21C/TR8	3.2x1.6x1.1	940	1.2	1.5	0.5	1.5	160
HIR25-21C/L423/TR8	3.2x1.6x1.1	850	1.45	1.65	3.0	5.5	70
HIR25-21C/L423/2T	3.2x1.6x1.1	850	1.6@50mA	2.0@50mA	3.0	5.5	70



UNIT : mm

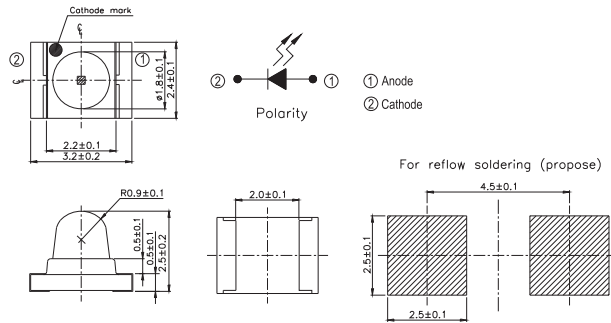


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR26-21C/L110/TR8	3.2x1.6x1.9	940	1.2	1.5	1	3.0	20
HIR26-21C/L423/CT	3.2x1.6x1.9	855	1.45	1.7	14	25	20
HIR26-21C/L289/CT	3.2x1.6x1.9	850	1.4	1.7	10	17	20

Infrared LED and Silicon Detector | Emitter | SMD



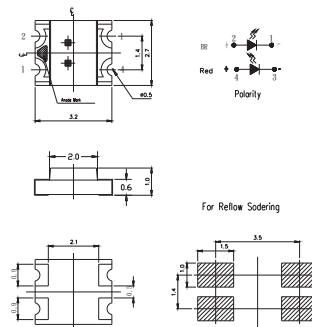
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ Min (mW/sr)	$I_e$ Typ (mW/sr)	Viewing Angle (°)
IR42-21C/TR8	3.2x2.4x2.5	940	1.2	1.5	1	3	30
HIR42-21C/TR8	3.2x2.4x2.5	850	1.45	1.65	2	5	20
HIR42-21C/L289/TR8	3.2x2.4x2.5	850	1.4	1.6	11	30	20



UNIT : mm



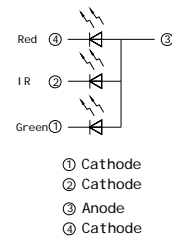
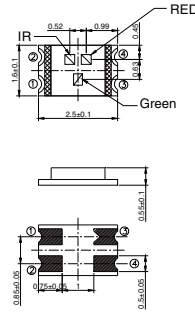
Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ Min (mW/sr)	$I_e$ Typ (mW/sr)	Viewing Angle (°)
BR15-22C/L586/TR8	3.2x2.7x1	660/905	1.9/1.3	2.5/1.6	0.5/0.2	1.5/0.5	120
BR15-22C/L586/R/TR8	3.2x2.7x1	660/905	1.8/1.3	2.6/1.8	0.5/0.2	1.5/0.5	140
IRR15-22C/L491/TR8	3.2x2.7x1	660/940	1.9/1.3	2.5/1.7	1.0/1.0	2.3/2.1	120

Infrared LED and Silicon Detector | Emitter | SMD

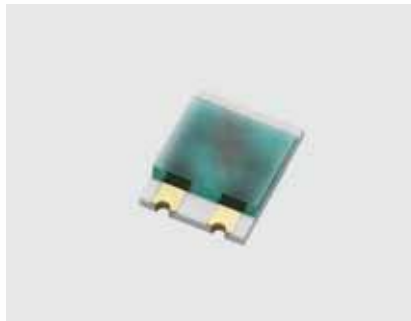
Infrared LED and Silicon Detector



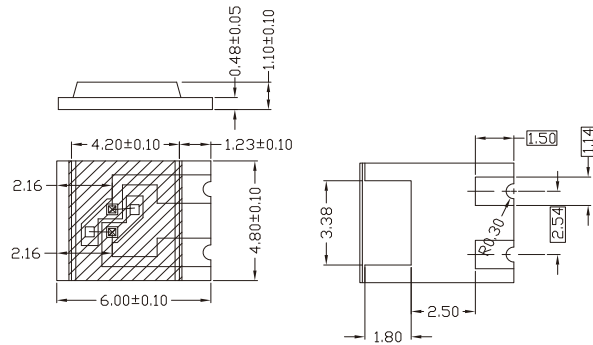
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ Min (mW/sr)	$I_e$ Typ (mW/sr)	Viewing Angle (°)
IRRG25-16C/L491/TR8	2.5x1.6x0.55	525/660/940	3.0/1.9/1.3	3.5/2.3/1.7	1200mcd/150mcd/1.5	-	120



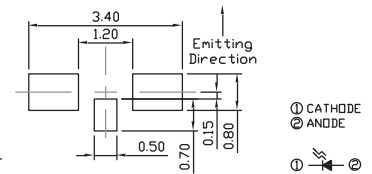
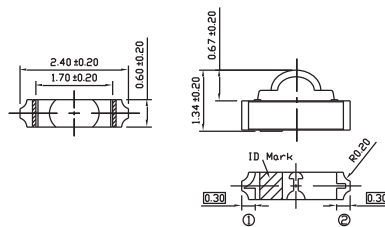
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ Min (mW/sr)	$I_e$ Typ (mW/sr)	Viewing Angle (°)
IRR60-48C/TR8	6x4.8x1.1	660/905	2.1/1.4	2.5/1.6	1.0/0.5	2.3/1.0	140/130
IRR60-48C/L661/TR8	6x4.8x1.1	660/910	2.1/1.4	2.5/1.6	1.0/1.0	2.3/1.5	140/130

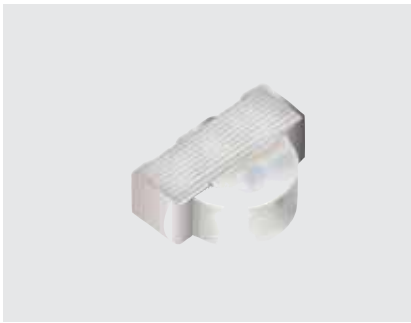


UNIT : mm

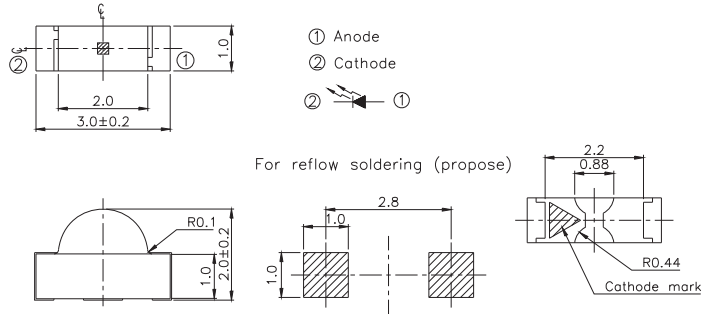


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ Min (mW/sr)	$I_e$ Typ (mW/sr)	Viewing Angle (°)
IR12-206C/L268/TR8	2.4x0.6x1.34	940	1.2	1.4	0.8	1.5	160(X) 120(Y)
IR12-206C/L774/TR8	2.4x0.6x1.34	940	1.20	1.50	0.80	1.50	155(X) 140(Y)

Infrared LED and Silicon Detector | Emitter | SMD



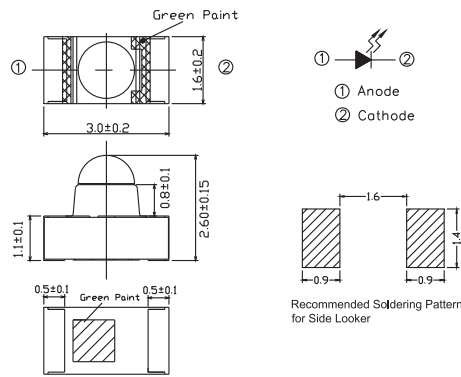
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ _Min (mW/sr)	$I_e$ _Typ (mW/sr)	Viewing Angle (°)
IR12-21C/TR8	3x1x2	940	1.2	1.5	0.5	0.8	160
SIR12-21C/TR8	3x1x2	875	1.3	1.6	0.5	0.9	160
HIR12-21C/TR8	3x1x2	850	1.45	1.65	0.7	1.3	145



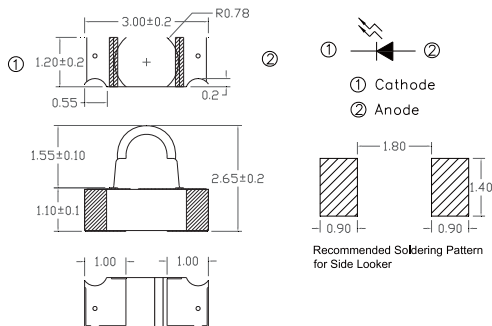
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ _Min (mW/sr)	$I_e$ _Typ (mW/sr)	Viewing Angle (°)
IR26-51C/L110/TR8	3.0x1.6x2.6	940	1.2	1.5	2	4.5	20
IR26-51C/L746/TR8	3.0x1.6x2.6	940	1.25	1.50	4.00	-	20



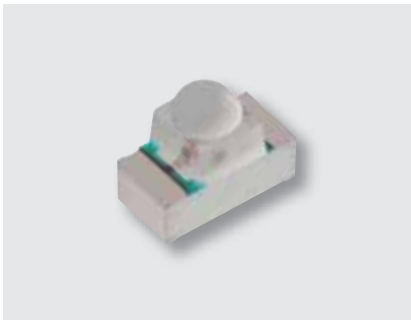
UNIT : mm



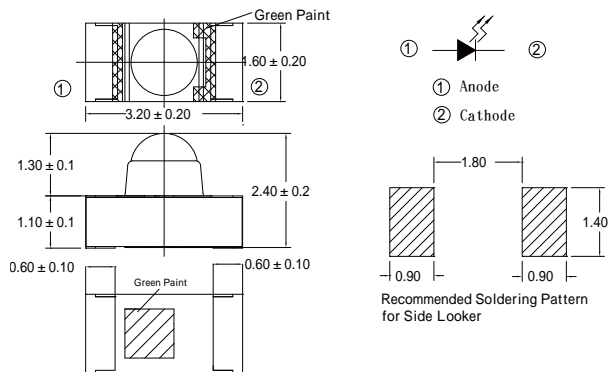
Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ _Min (mW/sr)	$I_e$ _Typ (mW/sr)	Viewing Angle (°)
IR26-61C/L746/TR8	3x1.2x2.65	940	1.25	1.5	4	8	20
IR26-61C/L745/TR8	3x1.2x2.65	940	1.20	1.5	13	20	25
IR26-61C/L675/TR8	3x1.2x2.65	940	1.2	1.5	4	8	40
IR26-61C/L786/R/TR8	3x1.2x2.65	940	1.30	1.50	10	20	20



Infrared LED and Silicon Detector | Emitter | SMD



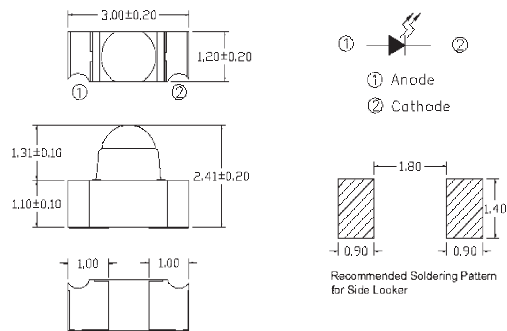
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR26-71C/L746/TR8	3.2x1.6x2.4	940	1.25	1.5	2.0	4.5	45



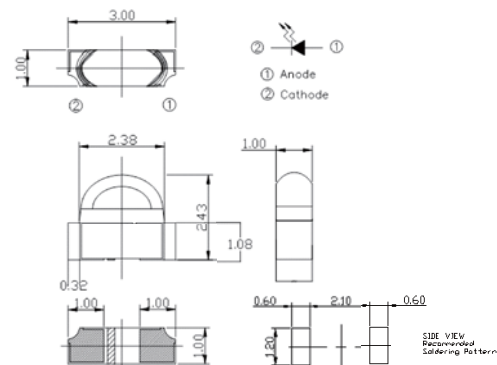
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR26-71C/L447/S63/TR8	3.0x2.4x1.2	940	1.3	1.6	5	8.5	50

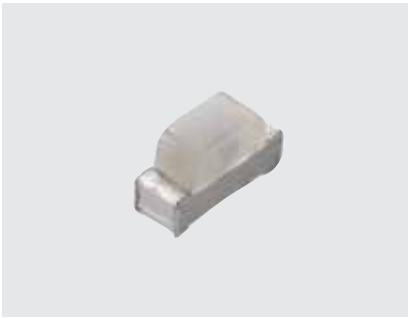


UNIT : mm

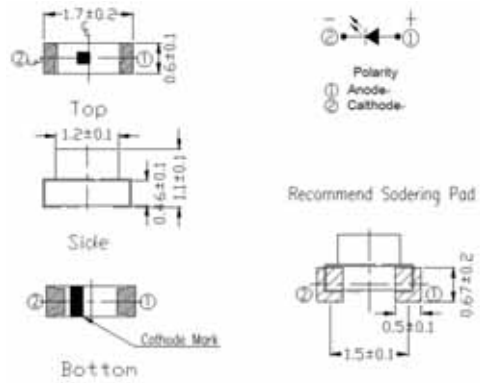


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR26-91C/L510/2D	3x2.43x1	940	1.3	1.6	-	8	130(X)20(Y)
IR26-91C/L675/2D	3x2.43x1	940	1.2	1.6	-	3.5	120(X)45(Y)
IR26-91C/L710/2D	3x2.43x1	940	1.2	1.6	-	4	125(X)55(Y)

Infrared LED and Silicon Detector | Emitter | SMD



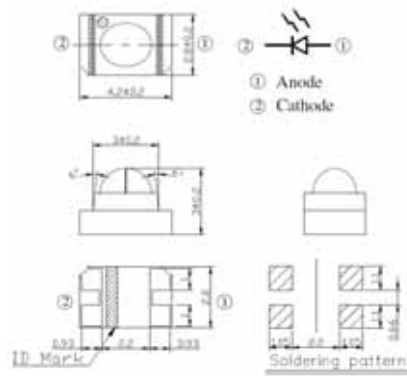
UNIT : mm



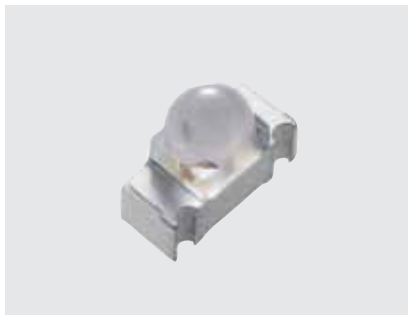
Product	Size (mm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR27-21C/TR8	1.7x0.6x1.1	940	1.20	1.50	0.20	0.80	150



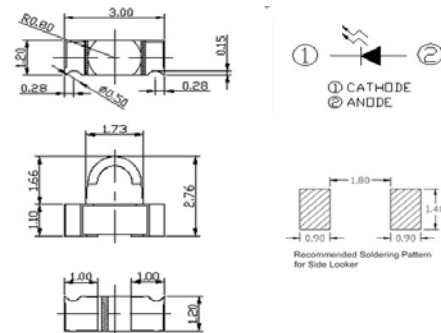
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR28-01C/L491/2R	4.2x2.8x3	940	1.3	1.6	7	11	75(X) 40(Y)
IR28-01C/L698/2R	4.2x2.8x3	940	1.3	1.6	4	6	80(X) 40(Y)
IR28-01C/L710/2R	4.2x2.8x3	940	1.2	1.6	7	9.5	70(X) 40(Y)



UNIT : mm



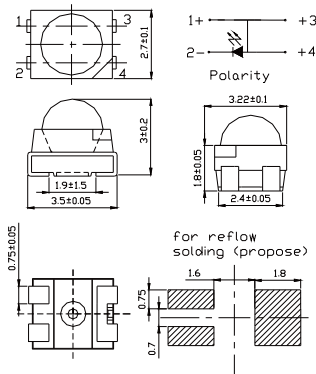
Product	Size (mm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR29-01C/L510/R/TR8	3x1.2x2.76	940	1.30	1.60	20.00	25.00	15



Infrared LED and Silicon Detector | Emitter | SMD



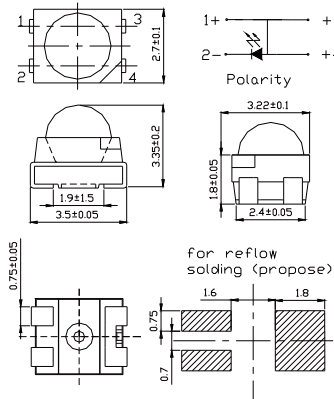
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR67-31AC/L638/TR8	3.5x2.7x3	850	2.85	3.3	8	15	60



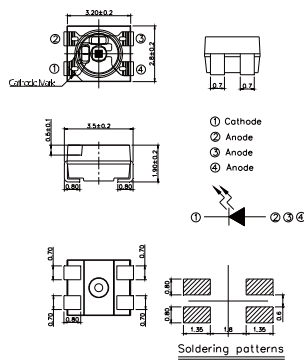
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR67-31JC/L638/TR8	3.5x2.7x3.35	850	2.85	3.3	13	20	35



UNIT : mm

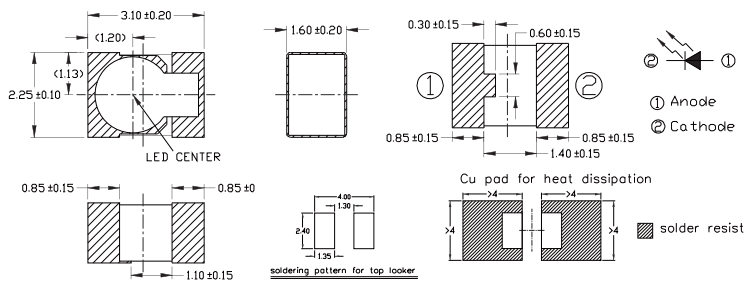


Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR67-41C/L491/TR8	3.5x2.7x1.9	940	1.30	1.60	1.10	1.30	20

Infrared LED and Silicon Detector | Emitter | SMD



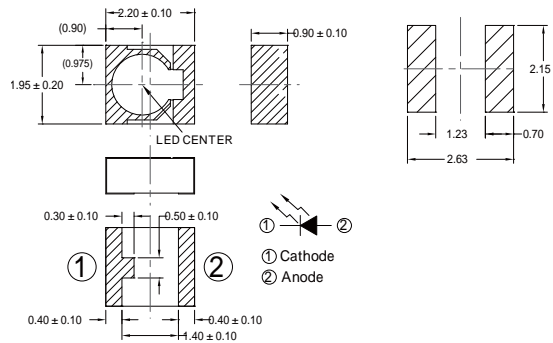
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR89-01C/1R	3.1x2.25x1.6	850	1.4	1.7	40@70mA	125(Max)	30
IR89-01C/L447/1R	3.1x2.25x1.6	940	1.75@100mA	2.2@100mA	40@70mA	60	30



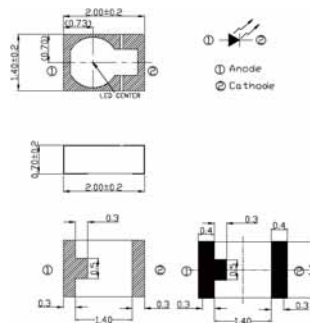
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR91-01C/L297/2T	2.2x1.95x0.9	850	1.4	1.7	25@70mA	40@70mA	40
IR91-01C/L491/2R	2.2x1.95x0.9	940	1.4	1.7	25@70mA	50@70mA	40



UNIT : mm

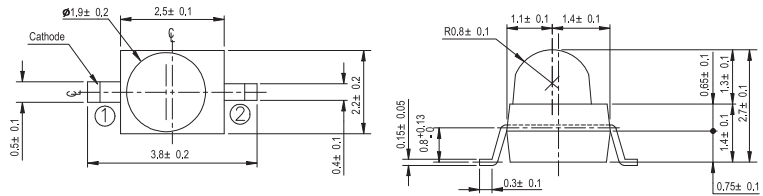


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR92-01C/L491/2R	2.0x1.4x0.7	940	1.30	1.70	-	8.00	45
IR92-01C/L735/2R	2.0x1.4x0.7	940	1.40	1.80	7.00	10.00	25

Infrared LED and Silicon Detector | Emitter | SMD



UNIT : mm

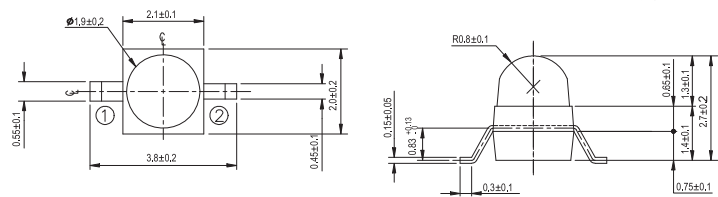


- ① Cathode
- ② Anode

Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR91-21C	2.5x2.2x2.7	940	1.2	1.5	3	5	25
IR91-21C/TR7	2.5x2.2x2.7	940	1.2	1.5	3	5	25
IR91-21C/TR10	2.5x2.2x2.7	940	1.2	1.5	3	5	25
SIR91-21C/TR7	2.5x2.2x2.7	875	1.3	1.6	3	5	20



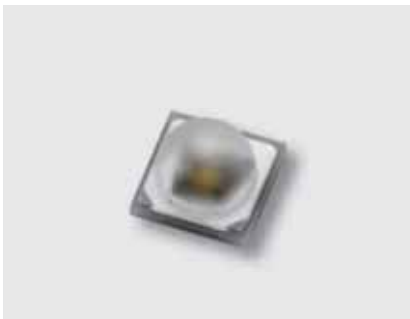
UNIT : mm



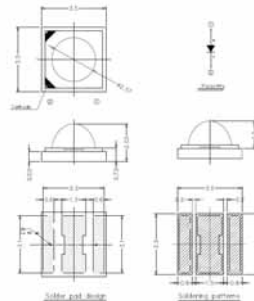
- ① Cathode
- ② Anode

Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR95-21C/TR7	2.1x2x2.7	940	1.2	1.5	3	5	25
SIR95-21C/TR10	2.1x2x2.7	875	1.3	1.6	2	4	25
IR95-21C/L491/TR7	2.1x2x2.7	940	1.20	1.50	20.00	30.00	20

Infrared LED and Silicon Detector | Emitter | High Power



UNIT : mm



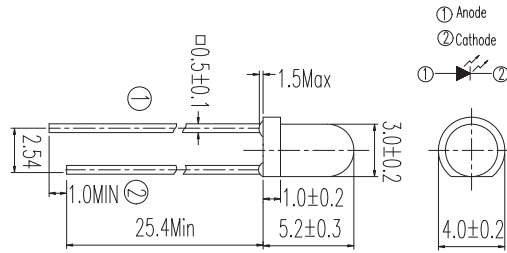
Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V) (If = 350mA)	$I_{e\_Typ}$ (mW/sr) (If = 350mA)	Power Typ (mW) (If = 350mA)	Viewing Angle (°)
HIR-C19D-1090/L708-P01/TR	3.5x3.5x2.36	850	1.7	110	270	90
IR-C19-N/L482-P01/TR	3.5x3.5x2.36	940	1.6	75	235	105
HIR-C19D-1N90/L649-P03/TR	3.5x3.5x2.36	850	3	200	500	90
IR-C19D-N90/L562-P03/TR	3.5x3.5x2.36	940	3.1	170	370	90
HIR-C19D-1N150/L649-P03/TR	3.5x3.5x1.52	850	3	100	400	150

Infrared LED and Silicon Detector

Infrared LED and Silicon Detector | Emitter | Lamp 3mm



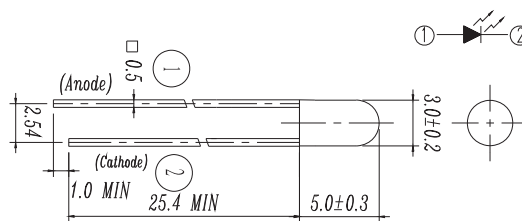
UNIT : mm



Product	Size (mm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR204	3	850	1.45	1.65	7.8	17.6	25
HIR204/H0	3	850	1.45	1.65	4	8.9	40
HIR204C	3	850	1.45	1.65	7.8	17.6	25
HIR204C/H0	3	850	1.45	1.65	11	20	40
IR204-A	3	940	1.2	1.5	4	5.6	35
IR204/H16/L10	3	940	1.2	1.5	4	8	50
IR204/H60	3	940	1.2	1.5	4	7	50
IR204C-A	3	940	1.2	1.5	4	7.8	40
IR204C/H16/L10	3	940	1.2	1.5	2.8	5	50
SIR204-A	3	875	1.3	1.6	4	6.4	30
SIR204C	3	875	1.3	1.6	4	6.4	30



UNIT : mm

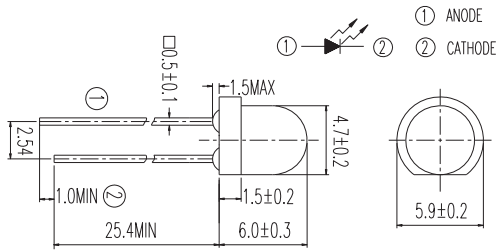


Product	Size (mm)	$\lambda_p$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
SIR234	3	875	1.3	1.6	5.6	9.3	30
HIR234C	3	850	1.45	1.65	7.8	15	30

Infrared LED and Silicon Detector | Emitter | Lamp 5mm



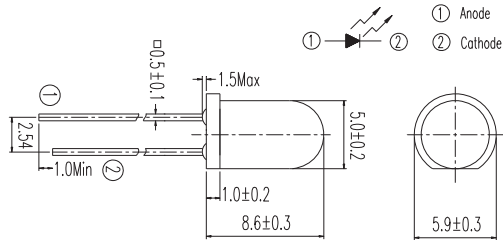
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ Min (mW/sr)	$I_e$ Typ (mW/sr)	Viewing Angle (°)
HIR323C	5	850	1.45	1.65	15	30	15
HIR323C/H0	5	850	1.45	1.65	7.8	11	30
IR323	5	940	1.2	1.5	5.6	7.8	30
IR323/H0-A	5	940	1.2	1.5	2	3.5	60



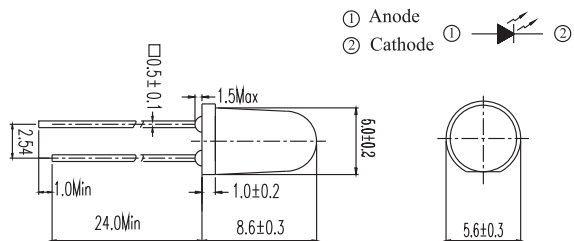
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_e$ Min (mW/sr)	$I_e$ Typ (mW/sr)	Viewing Angle (°)
HIR333/H0	5	850	1.45	1.65	7.8	15	30
HIR333C/H0	5	850	1.45	1.65	7.8	15	30
IR333-A	5	940	1.2	1.5	7.8	20	20
IR333/H0	5	940	1.2	1.5	5.6	7.8	40
IR333/H0/L10	5	940	1.2	1.5	11	20	40
IR333C	5	940	1.2	1.5	7.8	15	20
IR333C/H0/L10	5	940	1.2	1.5	7.8	10	40
IR333C/H2	5	940	1.2	1.5	7.8	15	30
SIR333-A	5	875	1.3	1.65	7.8	20	20
HIR7353-14B/L762	5	850	1.40	-	-	75.00	15



UNIT : mm



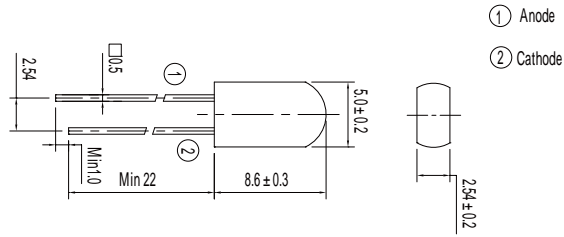
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IR383	5	940	1.2	1.5	15	20	20
SIR383C	5	875	1.3	1.6	11	20	20
HIR383C/L289	5	850	1.45	1.65	--	140	18



Infrared LED and Silicon Detector | Emitter | Lamp 5mm



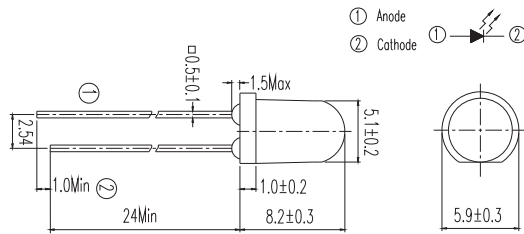
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR533C	5	940	1.2	1.5	4	7.8	25



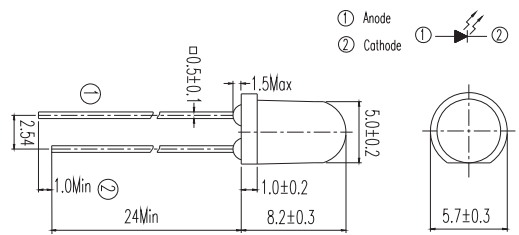
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR7373B/L289	5	850	1.45	1.6	21	40	25
HIR7373C	5	850	1.45	1.65	7.8	15	40
IR7373C	5	940	1.2	1.5	5.6	12	45



UNIT : mm

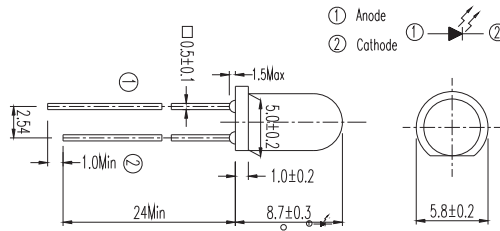


Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR7393B/L289	5	850	1.45	1.6	7.8	20	50
HIR7393C	5	850	1.45	1.65	7.8	15	45
IR7393C	5	940	1.2	1.5	4	6.5	55

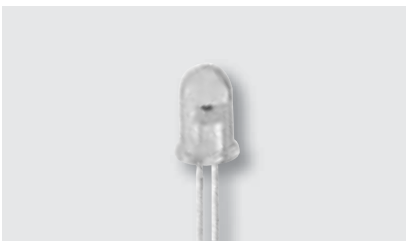
Infrared LED and Silicon Detector | Emitter | Lamp 5mm



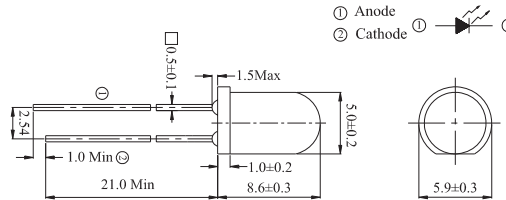
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR8323/C16	5	850	1.45	1.65	20	30	30



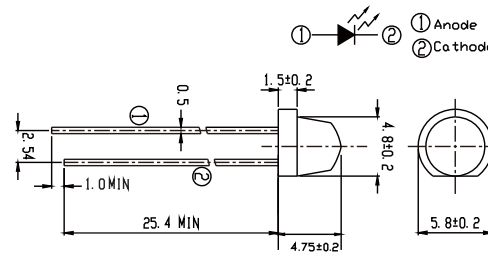
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR8353-14C	5	940	1.2	1.5	7.8	11	27-43



UNIT : mm

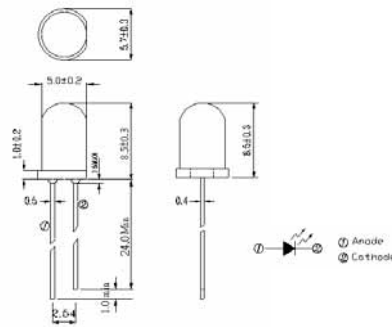


Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR7323C/L599	5	850	1.4@50mA	1.7@50mA	10@50mA	13@50mA	75

Infrared LED and Silicon Detector | Emitter | Lamp 5mm



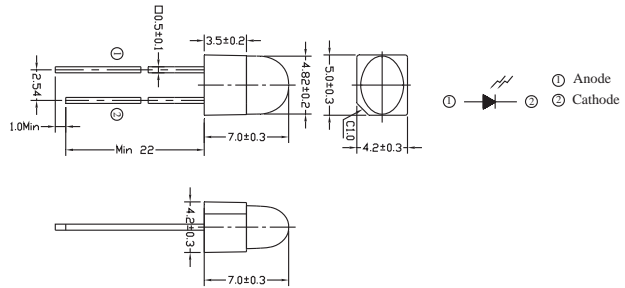
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR8394-20C	5	940	1.2	1.5	2.8	5	60



UNIT : mm

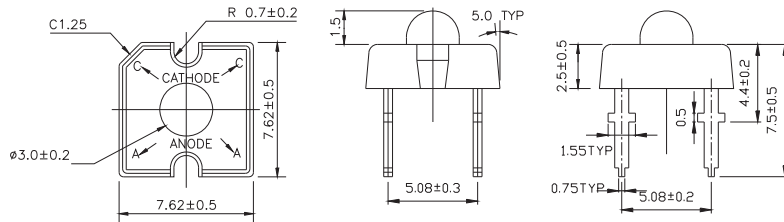
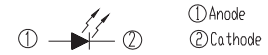


Product	Size (mm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR5443-14C/L527	5	940	1.2	1.5	4	9	60(X)30(Y)

Infrared LED and Silicon Detector | Emitter | Piranha



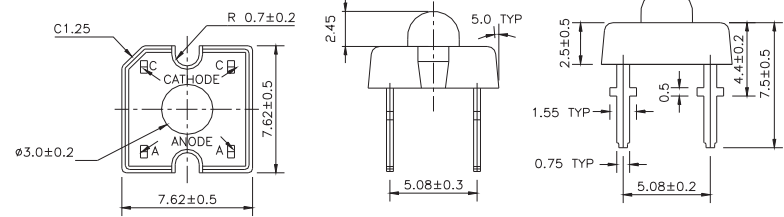
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR30-01C/S16	7.62x7.62x4	850	1.45	1.65	5.6	10	35



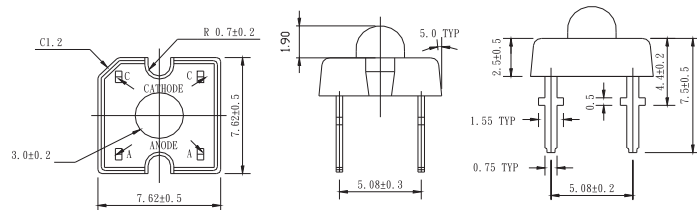
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR36-01C/S32	7.62x7.62x5	850	1.45	1.65	15	29	20



UNIT : mm

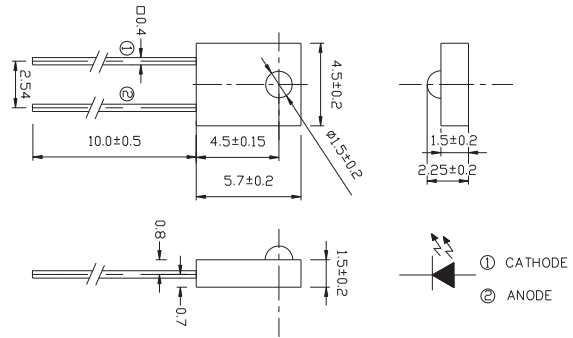


Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
HIR38-01C	7.62x7.62x4.4	850	1.45	1.65	7.8	17	30

Infrared LED and Silicon Detector | Emitter | Side Look



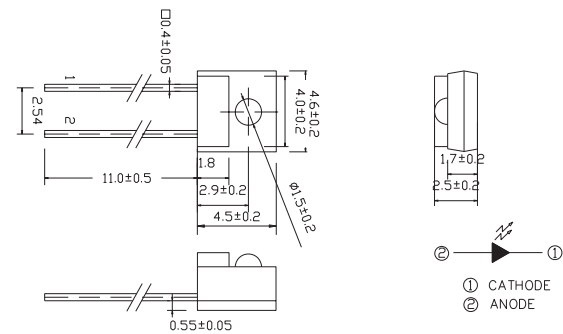
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR908-7C-F	4.5x2.25x5.7	940	1.2	1.5	--	--	40



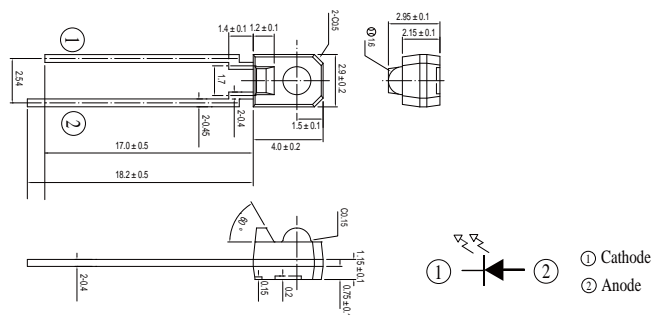
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR928-6C-F	4.6x2.5x4.5	940	1.2	1.5	--	--	20



UNIT : mm

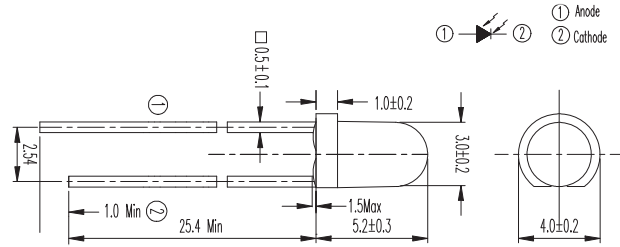


Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_F$ Typ (V)	$V_F$ Max (V)	$I_{e\_Min}$ (mW/sr)	$I_{e\_Typ}$ (mW/sr)	Viewing Angle (°)
IR968-8C	2.9x2.9x4	940	1.2	1.5	--	--	25

Infrared LED and Silicon Detector | Photo Diode | DIP



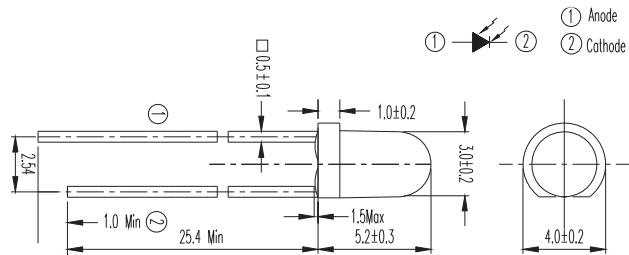
UNIT : mm



Product	Size (mm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min (V)	ID_Max (nA)
PD204-6C/L3	3	940	--	10	32	10



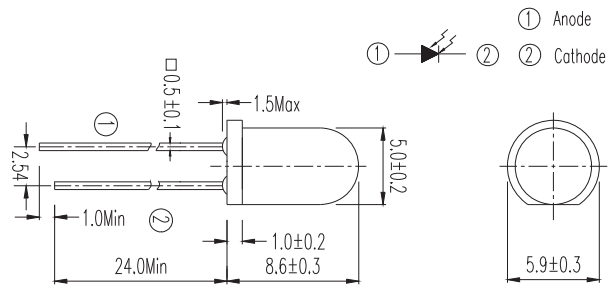
UNIT : mm



Product	Size (mm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min (V)	ID_Max (nA)
PD204-6B	3	940	1	3	32	10



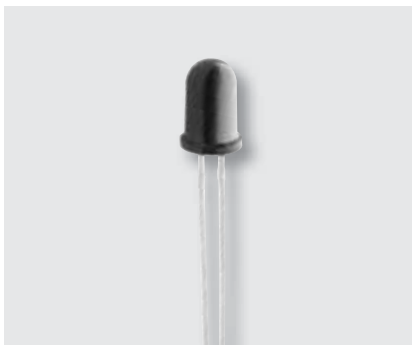
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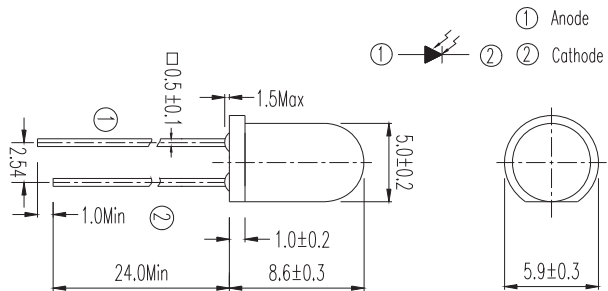
Product	Size (mm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min (V)	ID_Max (nA)
PD333-3C/H0/L2	5	940	36	40	32	30
PD333-3C/L793	5	940	20.00	35.00	30.00	10

Infrared LED and Silicon Detector

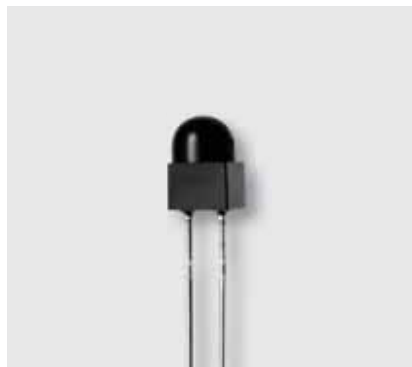
Infrared LED and Silicon Detector | Photo Diode | DIP



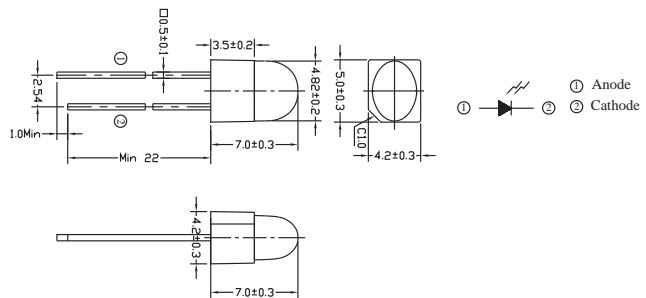
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ _Min ( $\mu A$ )	$I_L$ _Typ ( $\mu A$ )	BVR_Min (V)	ID_Max (nA)
PD333-3B/H0/L2	5	940	25	35	32	30



UNIT : mm

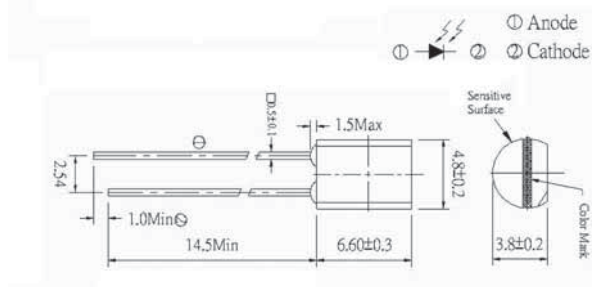


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ _Min ( $\mu A$ )	$I_L$ _Typ ( $\mu A$ )	BVR_Min (V)	ID_Max (nA)
PD5443-3B/L2	5	940	25	39	32	30

Infrared LED and Silicon Detector | Photo Diode | Side Look



UNIT : mm

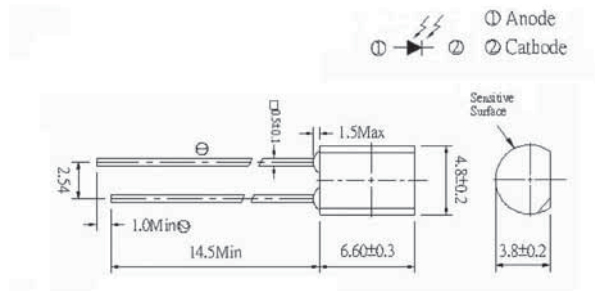


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ _Min ( $\mu A$ )	$I_L$ _Typ ( $\mu A$ )	Rise / Fall Time (ns)	BVR_Min.(V)	ID_Max (nA)
PD438C	4.8x3.8x6.6	940	10.2	18	50 / 50	32	30
PD438C/S46	4.8x3.8x6.6	940	10.2	18	50 / 50	32	30

Infrared LED and Silicon Detector | Photo Diode | Side Look



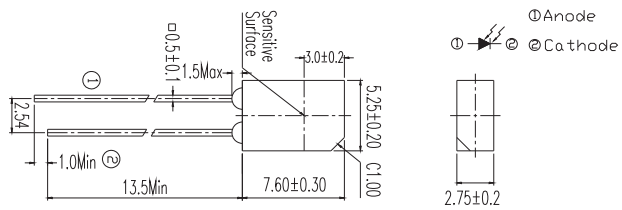
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	Rise / Fall Time (ns)	BVR_Min.(V)	ID_Max (nA)
PD438B	4.8x3.8x6.6	940	10.2	18	50 / 50	32	30
PD438B/L1	4.8x3.8x6.6	940	2.6	4	10 / 10	32	10
PD438B/S46	4.8x3.8x6.6	940	10.2	18	50 / 50	32	30



UNIT : mm

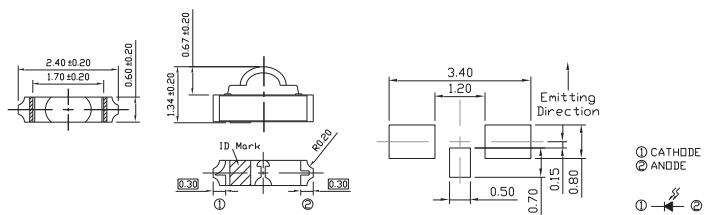


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	Rise / Fall Time (ns)	BVR_Min.(V)	ID_Max (nA)
PD638B	5.2x2.75x7.6	940	10.2	18	50 / 50	32	30

Infrared LED and Silicon Detector | Photo Diode | SMD



UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD12-206B/L512/TR8	2.4x0.6x1.34	875	--	0.7	33	10

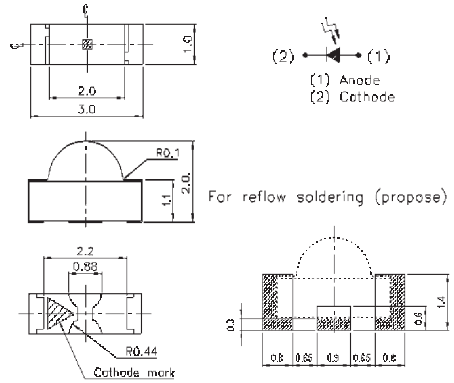
Infrared LED and Silicon Detector



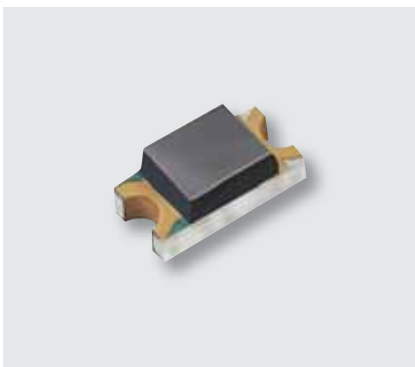
Infrared LED and Silicon Detector | Photo Diode | SMD



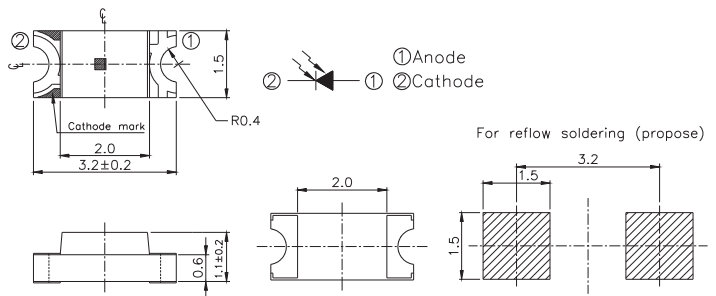
UNIT : mm



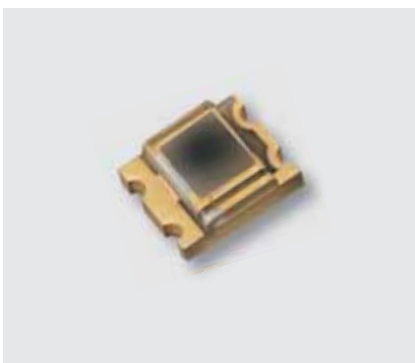
Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD12-21B/L458/TR8	3x1x2	940	1.3	1.5	33	10



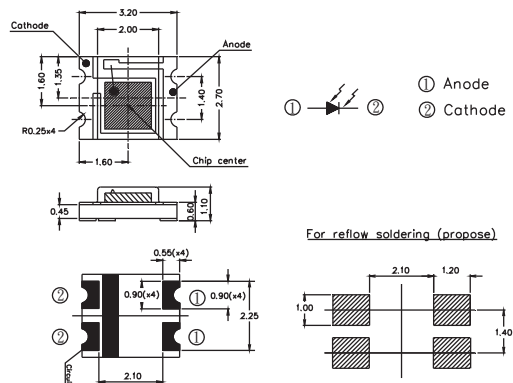
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD15-21B/TR8	3.2x1.5x1.1	940	0.2	0.8	32	10



UNIT : mm

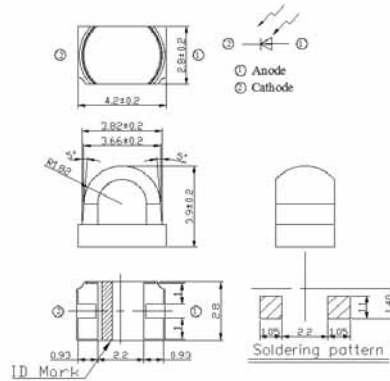


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD15-22C/TR8	3.2x2.7x1.1	940	4.2	6.5	32	10

Infrared LED and Silicon Detector | Photo Diode | SMD



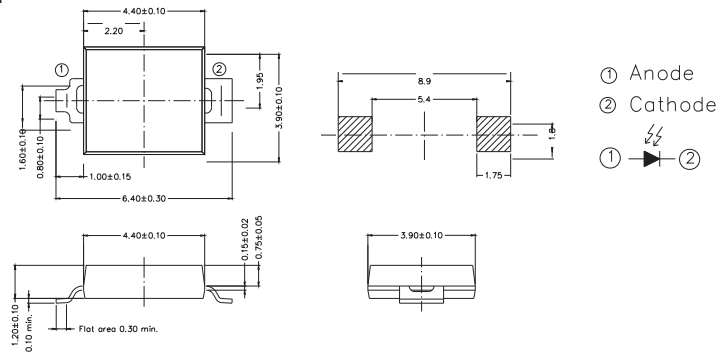
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD28-01B/L609/2R	4.2x2.8x3.9	940	20	25	32	30
PD28-01B/L598/2R	4.2x2.8x3.9	940	5	10	32	30



UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD70-01B/TR7	4.4x3.9x1.2	940	17	25	32	30
PD70-01C/TR7	4.4x3.9x1.2	940	17	25	32	30
PD70-01C/L469/TR7	4.4x3.9x1.2	950	18@470nm	25@470nm	30	20@VR=30V

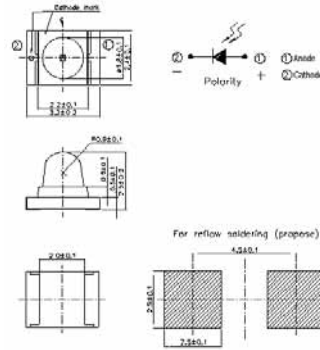
Infrared LED and Silicon Detector

Infrared LED and Silicon Detector | Photo Diode | SMD

Infrared LED and Silicon Detector



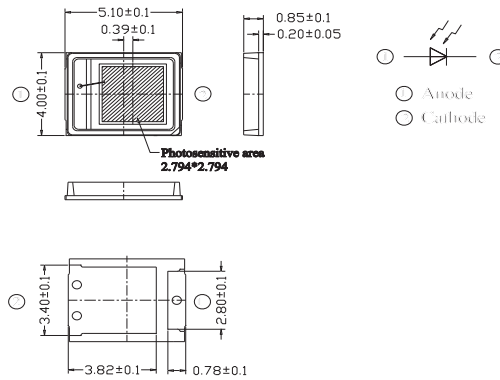
UNIT : mm



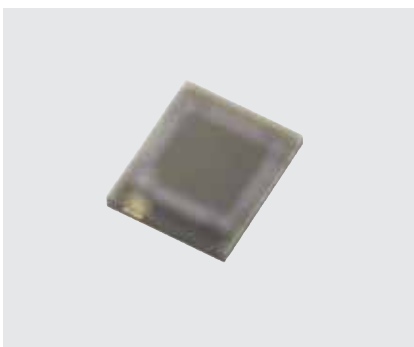
Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD42-21B/TR8	3.2x2.4x2.6	940	2	4	32	10
PD42-21C/TR8	3.2x2.4x2.6	940	2	5	32	10



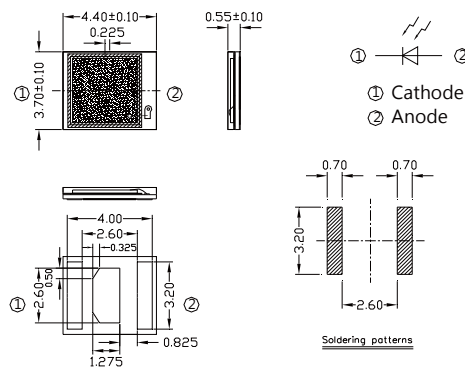
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD51-40C/TR8	5.1*4.0*0.85	940	20	30	32	10
PD51-40C/L665/TR8	5.1*4.0*0.85	620	19@525nm	23@525nm	32	10



UNIT : mm

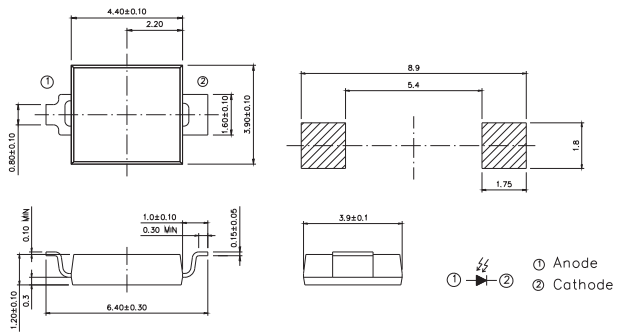


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD44-37C/L753/TR8	4.4x3.7x0.55	880	38.00	42.00	32.00	10

Infrared LED and Silicon Detector | Photo Diode | SMD



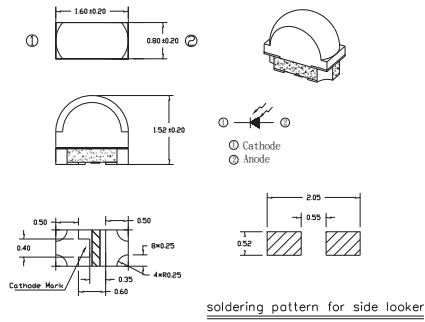
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD70-01B/TR10	4.4x3.9x1.2	940	17	25	32	30
PD70-01C/TR10	4.4x3.9x1.2	940	17	25	32	30



UNIT : mm



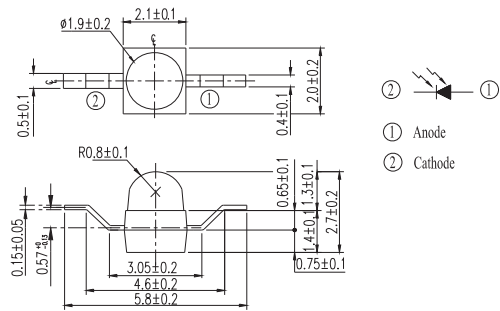
Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD83-01B/L458/TR8	1.6x0.8x1.52	940	1.14	2.4	32	10

Infrared LED and Silicon Detector

Infrared LED and Silicon Detector | Photo Diode | SMD



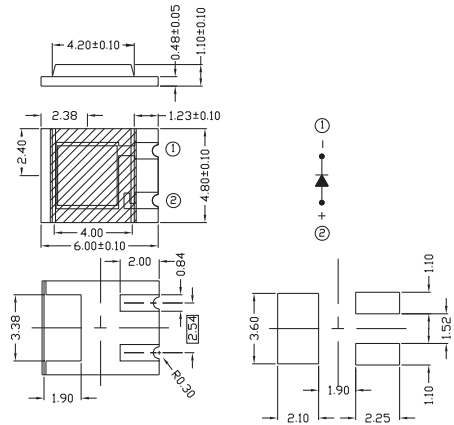
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min.(V)	ID_Max (nA)
PD95-21B/TR10	2.1x2x2.7	940	1	4	32	10



UNIT : mm

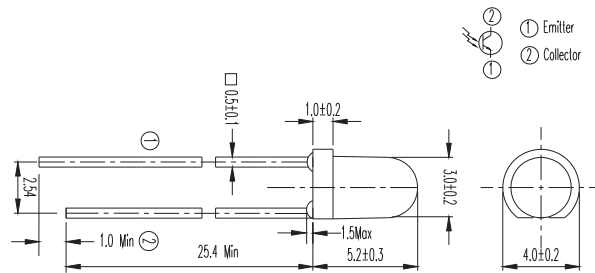


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$I_L$ Min ( $\mu A$ )	$I_L$ Typ ( $\mu A$ )	BVR_Min (V)	ID_Max (nA)
PD60-48C/TR8	6x4.8x1.1	940	17	33.5	33	20

Infrared LED and Silicon Detector | Photo Transistor | DIP



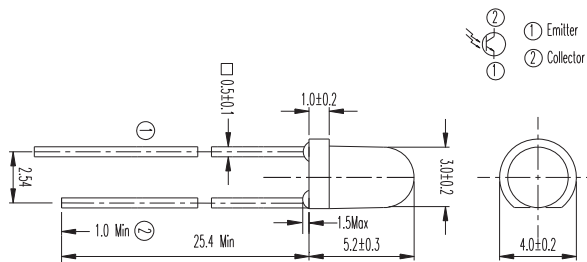
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT204-6C	3	940	0.4	0.7	2	--



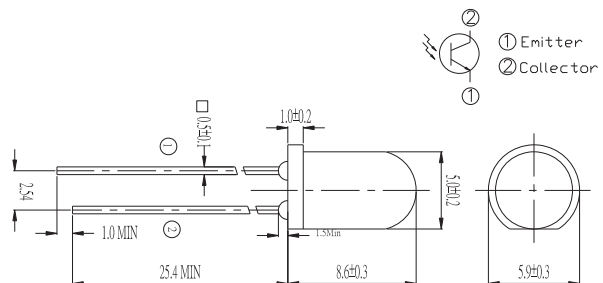
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT204-6B	3	940	0.4	0.7	--	5.07



UNIT : mm



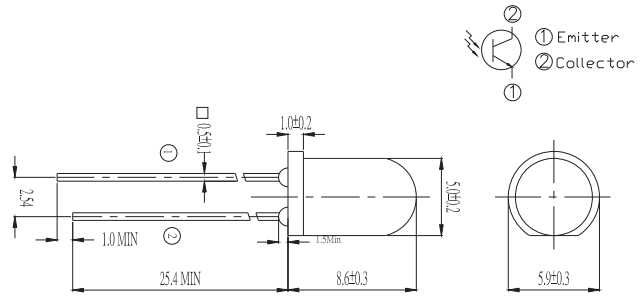
Product	Size (mm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT333-3C	5	940	0.4	0.7	4	--

Infrared LED and Silicon Detector

Infrared LED and Silicon Detector | Photo Transistor | DIP



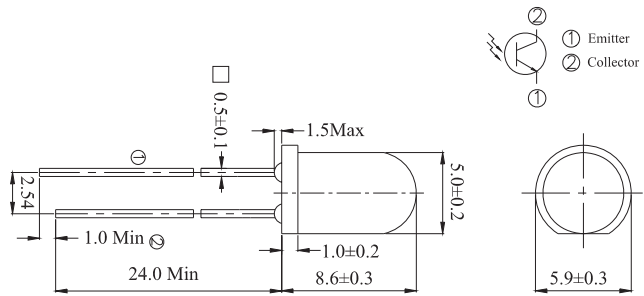
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT333-3B	5	940	0.4	0.7	3	--



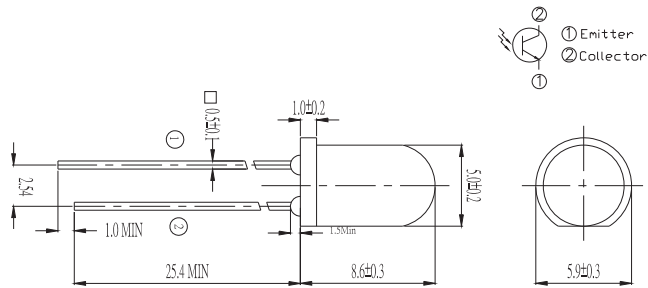
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT334-6C	5	940	0.4	1.77	3.5	--



UNIT : mm

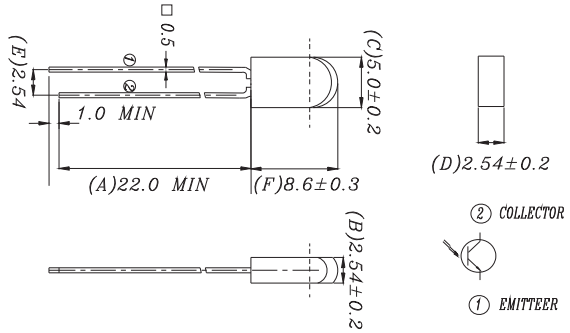


Product	Size (mm)	$\lambda_P$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT334-6B	5	940	0.4	0.7	2	--

Infrared LED and Silicon Detector | Photo Transistor | DIP



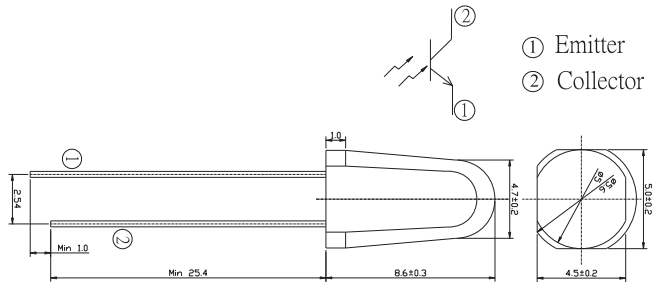
UNIT : mm



Product	Size (mm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT534-6B	5	940	0.4	0.7	1.2	--



UNIT : mm

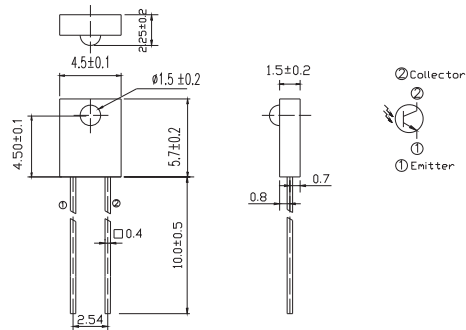


Product	Size (mm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT1504-6B	5	940	0.4	1.77	4	--

Infrared LED and Silicon Detector | Photo Transistor | Side Look



UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	Rise / Fall Time ( $\mu s$ )	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT908-7B-F	4.5x2.25x5.7	940	15 / 15	0.4	0.8	--	5
PT908-7C-F	4.5x2.25x5.7	940	15 / 15	0.4	0.8	--	5

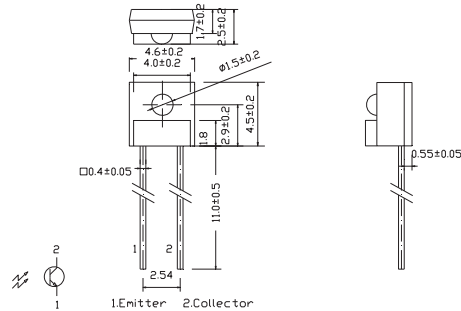
Infrared LED and Silicon Detector



Infrared LED and Silicon Detector | Photo Transistor | Side Look



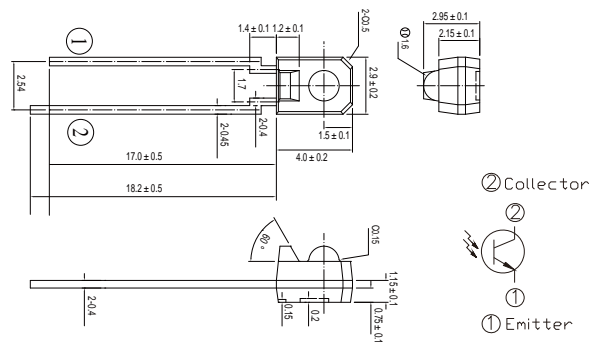
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Rise / Fall Time ( $\mu$ s)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT928-6B-F	4.6x2.5x4.5	940	15 / 15	0.4	0.53	--	3.41
PT928-6C-F	4.6x2.5x4.5	940	15 / 15	0.4	0.53	--	3.41



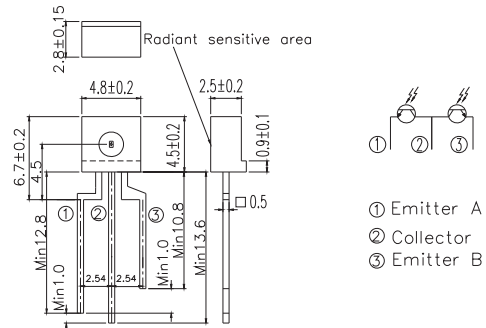
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Rise / Fall Time ( $\mu$ s)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT968-8C	2.9x2.9x4	940	15 / 15	0.4	1.59	--	3.41



UNIT : mm

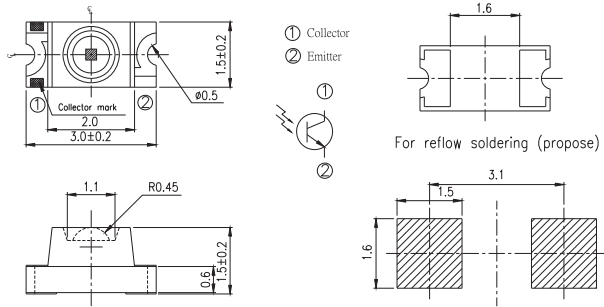


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Rise / Fall Time ( $\mu$ s)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT2559B/L2-F	4.8x2.8x4.5	940	15 / 15	0.4	0.129	--	1.085
PT2559B/L2/H2-F	4.8x2.8x4.5	940	15 / 15	0.4	0.129	--	1.085
PT5529B/L2-F	4.8x2.8x4.5	940	15 / 15	0.4	0.129	--	1.085
PT5529B/L2/H2-F	4.8x2.8x4.5	940	15 / 15	0.4	0.129	--	1.085

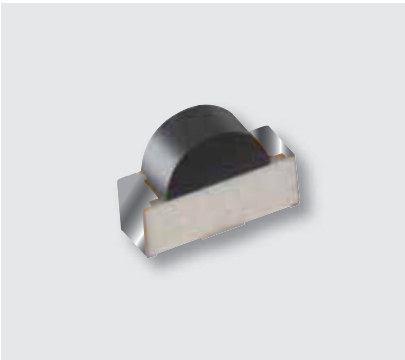
Infrared LED and Silicon Detector | Photo Transistor | SMD



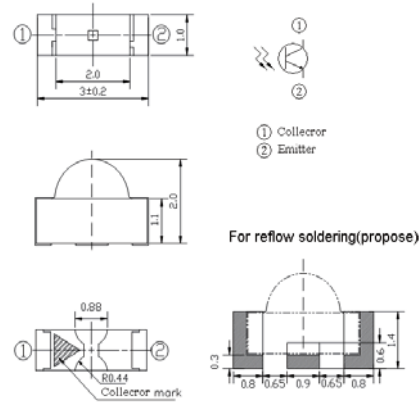
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT11-21C/L41/TR8	3x1.5x1.5	940	0.4	0.3	0.8	--



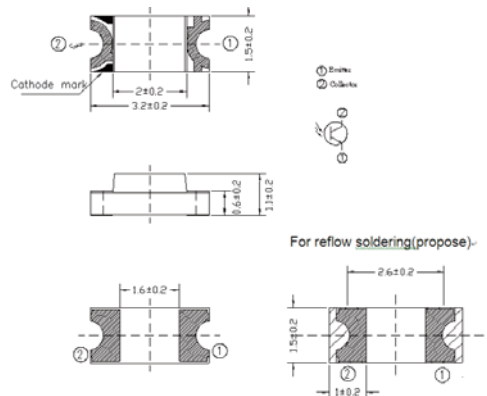
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT12-21B/TR8	3x1x2	940	0.4	0.3	--	--
PT12-21C/TR8	3x1x2	940	0.4	0.3	1.14	--
PT12-206B/L505/4G	2.4x0.6x1.34	880	0.40	0.30	0.60	--



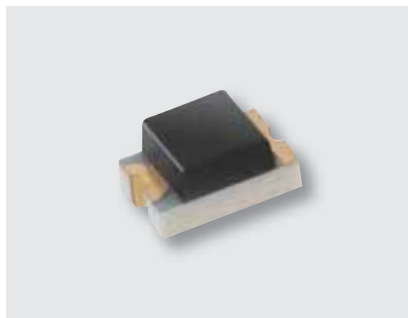
UNIT : mm



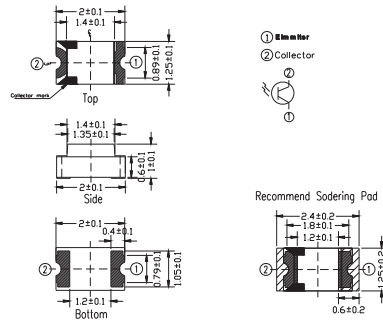
Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT15-21B/TR8	3.2x1.5x1.1	940	0.4	0.1	0.3	--
PT15-21C/TR8	3.2x1.5x1.1	940	0.4	0.1	0.3	--

Infrared LED and Silicon Detector

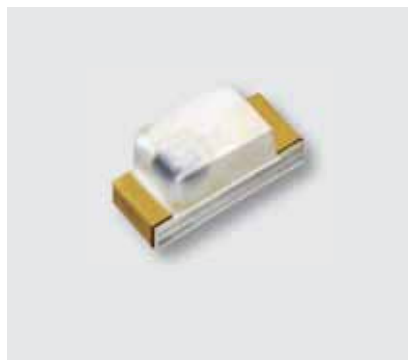
Infrared LED and Silicon Detector | Photo Transistor | SMD



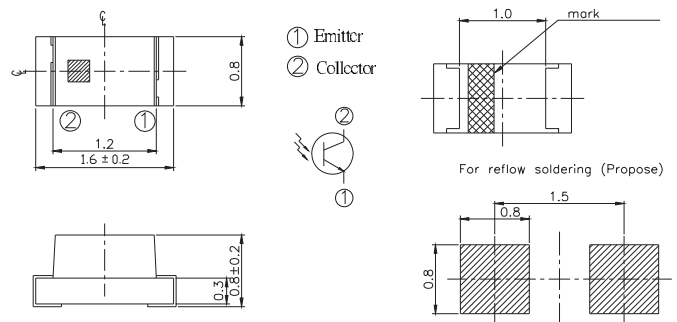
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT17-21B/L41/TR8	2x1.25x1.0	940	0.4	0.1	0.65	--
PT17-21C/L41/TR8	2x1.25x1.0	940	0.4	0.3	1	--



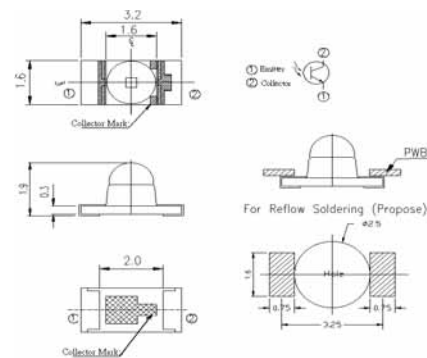
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT19-21B/L41/TR8	1.6x0.8x0.8	940	0.4	0.3	0.6	--
PT19-21C/L41/TR8	1.6x0.8x0.8	940	0.4	0.3	0.6	--



UNIT : mm

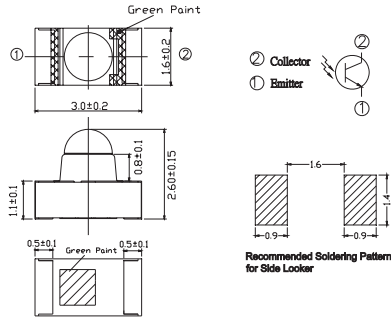


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT26-21B/TR8	3.2x1.6x1.9	940	0.4	--	2.6	--
PT26-21C/TR8	3.2x1.6x1.9	940	0.4	0.3	2.6	--

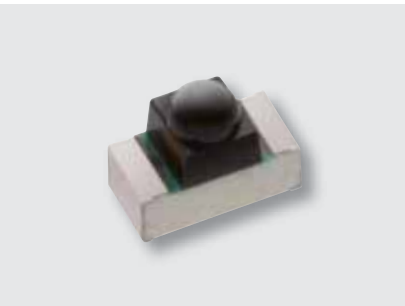
Infrared LED and Silicon Detector | Photo Transistor | SMD



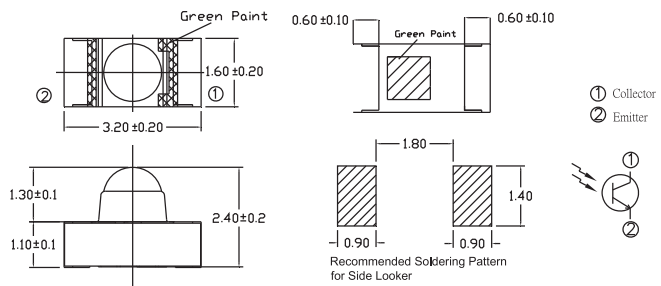
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON)\_Min}$ (mA)	$I_{C(ON)\_Typ}$ (mA)	$I_{C(ON)\_Max}$ (mA)
PT26-51B/TR8	3.0x1.6x2.6	940	0.4	--	1	--



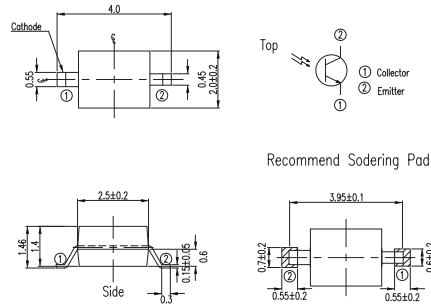
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON)\_Min}$ (mA)	$I_{C(ON)\_Typ}$ (mA)	$I_{C(ON)\_Max}$ (mA)
PT26-71B/TR8	3.2x1.6x2.4	920	0.4	1.14	3	--



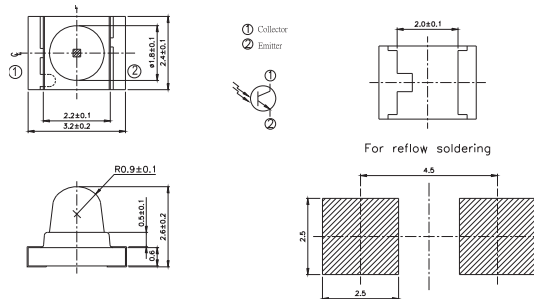
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON)\_Min}$ (mA)	$I_{C(ON)\_Typ}$ (mA)	$I_{C(ON)\_Max}$ (mA)
PT28-21B/TR8	2.5x2.0x1.4	940	0.4	0.1	0.3	-



UNIT : mm



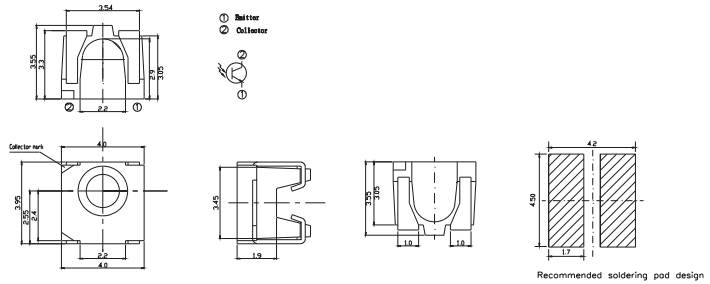
Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON)\_Min}$ (mA)	$I_{C(ON)\_Typ}$ (mA)	$I_{C(ON)\_Max}$ (mA)
PT42-21B/TR8	3.2x2.4x2.6	940	0.4	1.77	3	--

Infrared LED and Silicon Detector

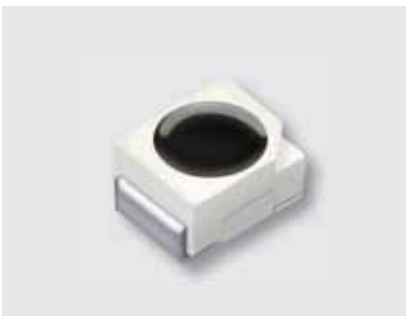
Infrared LED and Silicon Detector | Photo Transistor | SMD



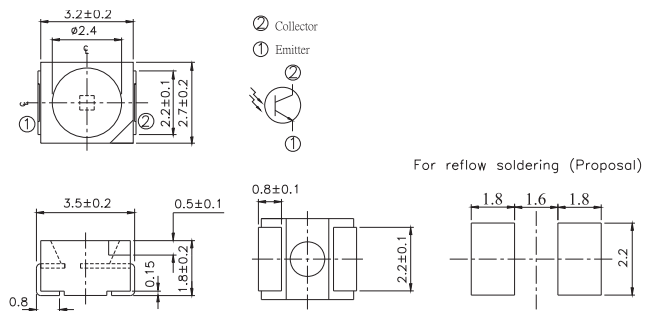
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT57-21B/TR8	4x3.95x3.55	940	0.4	0.4	0.8	5.0



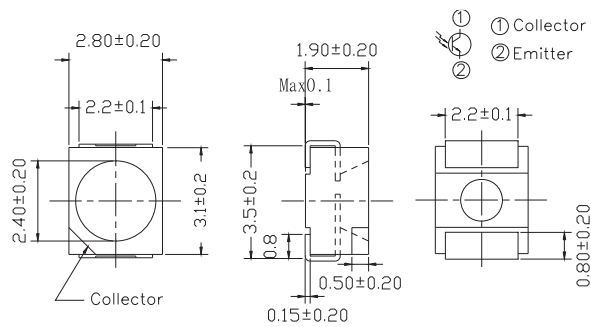
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT67-21B/C14/TR8	3.5x2.7x1.8	940	0.4	0.016	--	0.08



UNIT : mm

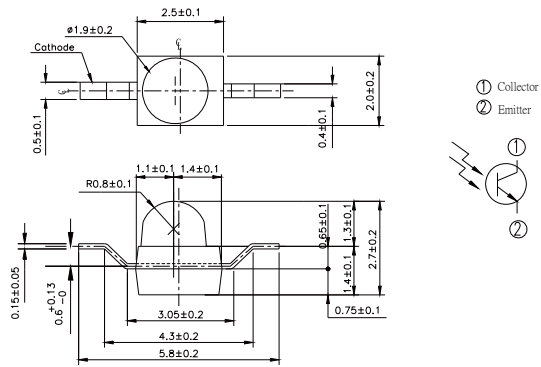


Product	Size (LxWxHmm)	$\lambda_p$ (nm)	$V_{CE(SAT\_Max)}$ (V)	$I_{C(ON\_Min)}$ (mA)	$I_{C(ON\_Typ)}$ (mA)	$I_{C(ON\_Max)}$ (mA)
PT67-21C/L41/TR8	3.5x2.8x1.9	940	0.4	0.3	1	--

Infrared LED and Silicon Detector | Photo Transistor | SMD



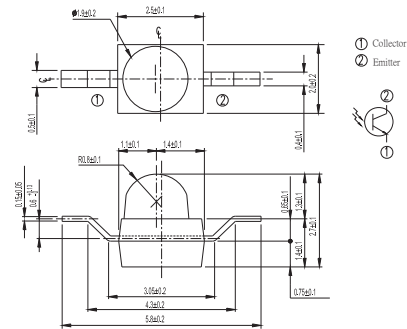
UNIT : mm



Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT91-21B	2.5x2x2.7	940	0.4	1	3	--
PT91-21B/TR10	2.5x2x2.7	940	0.4	1	3	--
PT91-21B/TR7	2.5x2x2.7	940	0.4	1	3	--
PT91-21B/TR9	2.5x2x2.7	940	0.4	1	3	--



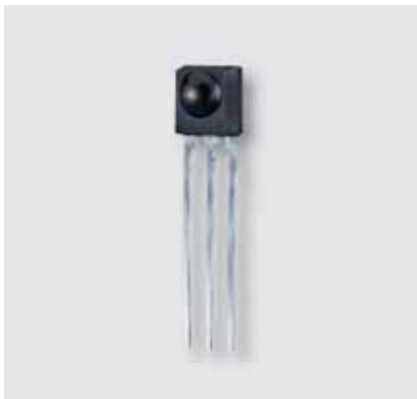
UNIT : mm



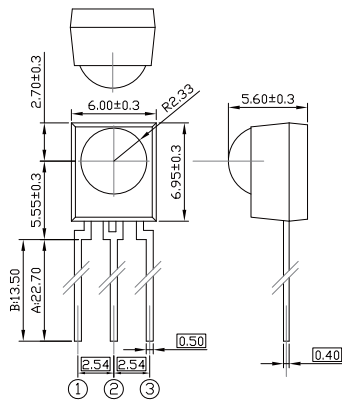
Product	Size (LxWxHmm)	$\lambda_P$ (nm)	$V_{CE(SAT)}_{Max}$ (V)	$I_{C(ON)}_{Min}$ (mA)	$I_{C(ON)}_{Typ}$ (mA)	$I_{C(ON)}_{Max}$ (mA)
PT91-21C	2.5x2x2.7	940	0.4	1	1.5	--
PT91-21C/TR10	2.5x2x2.7	940	0.4	1	1.5	--
PT91-21C/TR7	2.5x2x2.7	940	0.4	1	1.5	--

Infrared LED and Silicon Detector

Infrared Receiver Module | DIP | Vout-GND-Vcc



UNIT : mm



Infrared Receiver Module

IRM-36xx

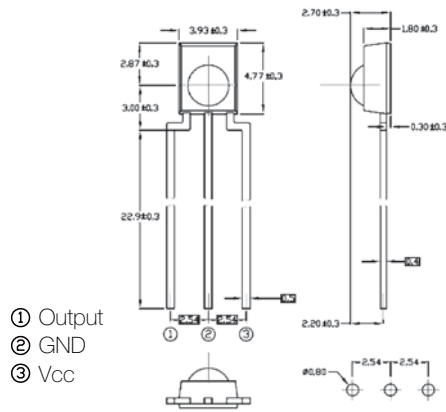
Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	I <sub>CC</sub> Typ (mA)	L <sub>Center</sub> (m)	L <sub>45</sub> (m)
IRM-36xxT	8.25x6.0x5.6	940	36 / 38	2.7~5.5	0.45	14	6
IRM-36xxM	8.25x6.0x5.6	940	36 / 38	2.7~5.5	0.4	14	6
IRM-36xxM2	8.25x6.0x5.6	940	36 / 38 / 40	2.7~5.5	0.4	14	6
IRM-36xxM3	8.25x6.0x5.6	940	36 / 38 / 56	2.7~5.5	0.4	14	6
IRM-36xxM6	8.25x6.0x5.6	940	36 / 38	2.7~5.5	0.4	14	6
IRM-36xxJ2	8.25x6.0x5.6	940	36 / 38 / 40	2.7~5.5	0.4	14	6
IRM-36xxT-X	8.25x6.0x5.6	940	36 / 38	2.7~5.5	0.45	14	6
IRM-36xxM-X	8.25x6.0x5.6	940	36 / 38	2.7~5.5	0.4	14	6
IRM-36xxM2-X	8.25x6.0x5.6	940	36 / 38 / 40	2.7~5.5	0.4	14	6
IRM-36xxM3-X	8.25x6.0x5.6	940	36 / 38 / 56	2.7~5.5	0.4	14	6
IRM-36xxJ7	8.25x6.0x5.6	940	36 / 38	2.7~5.5	0.5	14	6
IRM-36xxZ3	8.25x6.0x5.6	940	36 / 38 / 40	3~5	0.4	14	6
IRM-36xxJ8	8.25x6.0x5.6	940	32 / 36 / 38 / 40	2.7~5.5	0.4	14	6
IRM-36xxJ9	8.25x6.0x5.6	940	32 / 36 / 38 / 40	4.5~5.5	0.6	14	6



Infrared Receiver Module | DIP | Vout-GND-Vcc

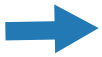


UNIT : mm



IRM-66xx

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{cc}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-66xxT	5.87x3.93x2.7	940	36 / 38	2.7~5.5	1	14	6
IRM-66xxM	5.87x3.93x2.7	940	36 / 38	2.7~5.5	0.4	14	6
IRM-66xxM2	5.87x3.93x2.7	940	36 / 38 / 40	2.7~5.5	0.4	14	6
IRM-66xxM3	5.87x3.93x2.7	940	36 / 38 / 56	2.7~5.5	0.4	14	6
IRM-66xxJ	5.87x3.93x2.7	940	38	2.7~5.5	0.4	14	6
IRM-66XXJ2	5.87x3.93x2.7	940	36,38,40	2.7~5.5	0.4	8	5



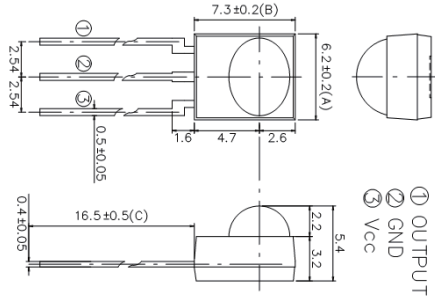
Infrared Receiver Module



Infrared Receiver Module | DIP | Vout-GND-Vcc



UNIT : mm



IRM-86xx

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{cc}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-86xxM2	8.9x6.2x5.4	940	36 / 38 / 40	2.7-5.5	0.4	8	5

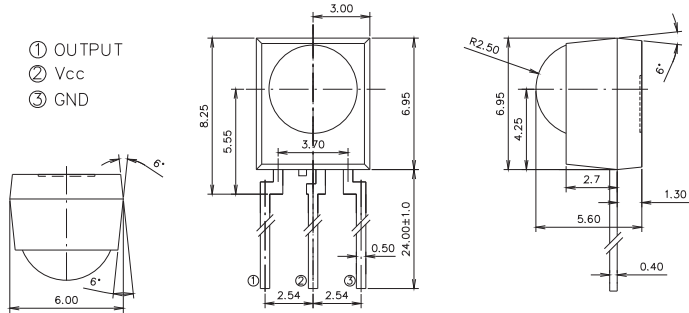


Infrared Receiver Module

Infrared Receiver Module | DIP | Vout-GND-Vcc



UNIT : mm



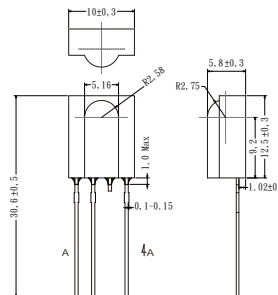
IRM-37xx

Product	Size (LxWxHmm)	$\lambda_P$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-37xxT	8.25x6.0x5.6	940	36 / 38	2.7~5.5	0.45	14	6
IRM-37xxM	8.25x6.0x5.6	940	36 / 38	2.7~5.5	0.4	14	6
IRM-37xxM2	8.25x6.0x5.6	940	36 / 38 / 40	2.7~5.5	0.4	14	6
IRM-37xxM3	8.25x6.0x5.6	940	36 / 38 / 56	2.7~5.5	0.4	14	6

Infrared Receiver Module



UNIT : mm



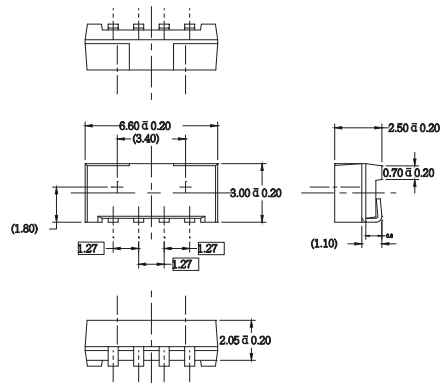
IRM-88xx

Product	Size (LxWxHmm)	$\lambda_P$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-88xxM3	30.6x10x5.8	940	36 / 38 / 56	2.7~5.5	0.4	14	6

Infrared Receiver Module | SMD | Side -View



UNIT : mm



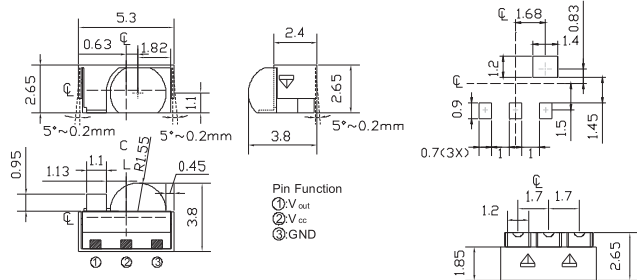
IRM-V3xx

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-V3xxM3	6.6x3x2.5	940	36 / 38 / 56	2.7~5.5	0.4	8	5

Infrared Receiver Module



UNIT : mm

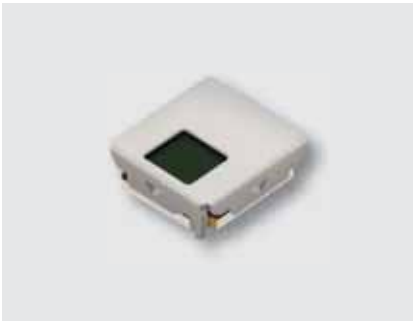


IRM-V5xx

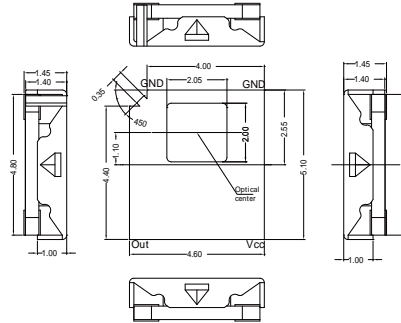
Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-V5xxT	5.3x3.8x2.65	940	36 / 38	2.7~5.5	0.4	8	5
IRM-V5xxM	5.3x3.8x2.65	940	36 / 38	2.7~5.5	0.4	8	5
IRM-V5xxM2	5.3x3.8x2.65	940	36 / 38 / 40	2.7~5.5	0.4	8	5
IRM-V5xxM3	5.3x3.8x2.65	940	36 / 38 / 56	2.7~5.5	0.4	8	5
IRM-V5xxJ2	5.3x3.8x2.65	940	36 / 38 / 40	2.7~5.5	0.53	8	5



Infrared Receiver Module | SMD | Top -View



UNIT : mm



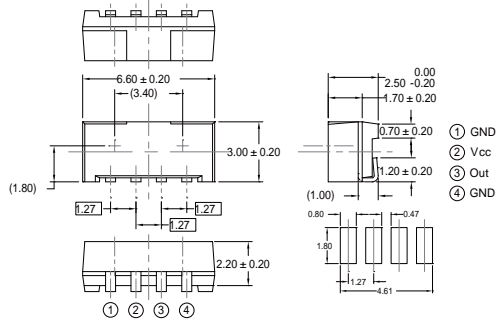
IRM-H2xx

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-H2xxT	5.1x4.6x1.45	940	36 / 38	2.7-5.5	0.4	8	5
IRM-H2xxM2	5.1x4.6x1.45	940	36 / 38 / 40	2.7-5.5	0.4	8	5
IRM-H2xxM3	5.1x4.6x1.45	940	36 / 38 / 56	2.7-5.5	0.4	8	5
IRM-H2XXJ2	5.1x4.6x1.45	940	36 / 38 / 40	2.7-5.5	0.4	8	5

Infrared Receiver Module



UNIT : mm



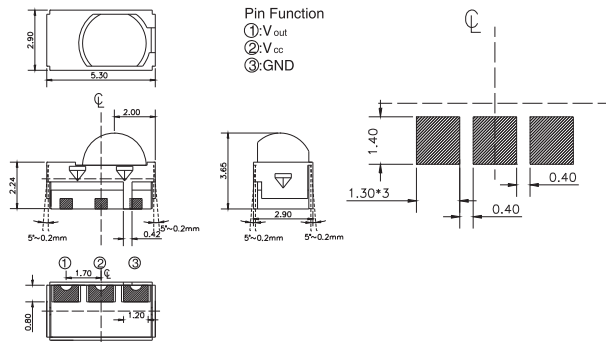
IRM-H3xx

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-H3xxM3	6.6x3x2.5	940	36 / 38 / 56	2.7-5.5	0.4	8	5
IRM-H3xxJ	6.6x3x2.5	940	38	2.7-5.5	1	8	5
IRM-H3XXJ8	6.6x3x2.5	940	32 / 36 / 38 / 40	2.7-5.5	0.4	8	5

Infrared Receiver Module | SMD | Top -View



UNIT : mm

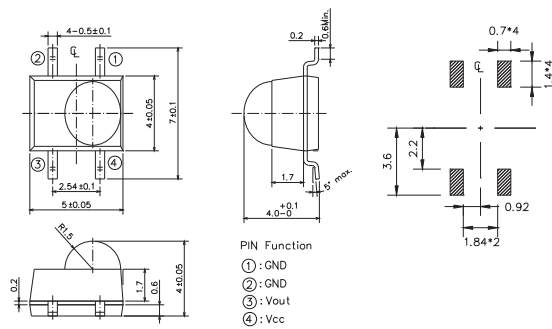


IRM-H5xx

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	I <sub>CC</sub> Typ (mA)	L <sub>Center</sub> (m)	L <sub>45</sub> (m)
IRM-H5xxT	5.3x2.9x3.65	940	36 / 38	2.7~5.5	0.4	8	5
IRM-H5xxM	5.3x2.9x3.65	940	36 / 38 / 40	2.7~5.5	0.4	8	5
IRM-H5xxM3	5.3x2.9x3.65	940	36 / 38 / 56	2.7~5.5	0.4	8	5



UNIT : mm



IRM-H6xx

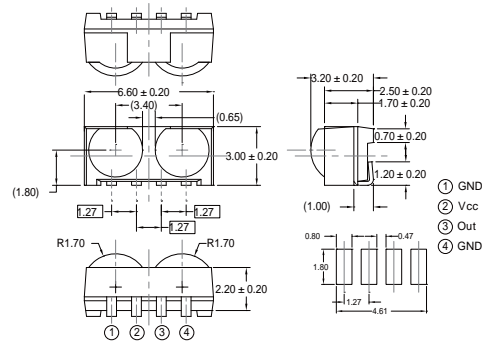
Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	I <sub>CC</sub> Typ (mA)	L <sub>Center</sub> (m)	L <sub>45</sub> (m)
IRM-H6xxT	5x4x4	940	36 / 38	2.7~5.5	1	8	5
IRM-H6xxM	5x4x4	940	36 / 38 / 40	2.7~5.5	0.4	8	5
IRM-H6xxM3	5x4x4	940	36 / 38 / 56	2.7~5.5	0.4	8	5
IRM-H6xxJ7	5x4x4	940	36 / 38 / 40	2.7~5.5	0.5	8	5

Infrared Receiver Module

Infrared Receiver Module | SMD | Top -View



UNIT : mm



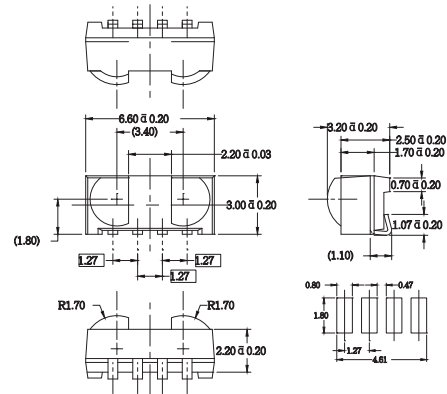
IRM-H8xx

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-H8xxM	6.6x3x3.2	940	36 / 38	2.7~5.5	0.4	8	5
IRM-H8xxM3	6.6x3x3.2	940	36 / 38 / 56	2.7~5.5	0.4	8	5
IRM-H8xxJ	6.6x3x3.2	940	36 / 38	2.7~5.5	1	8	5
IRM-H8XXJ8	6.6x3x3.2	940	32 / 36 / 38 / 40	2.7~5.5	0.4	8	5
IRM-H8XXJ9	6.6x3x3.2	940	32 / 36 / 38 / 40	2.7~5.5	0.6	8	5

Infrared Receiver Module



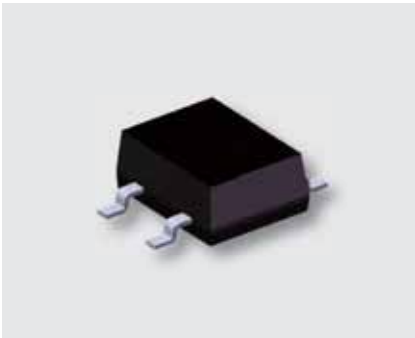
UNIT : mm



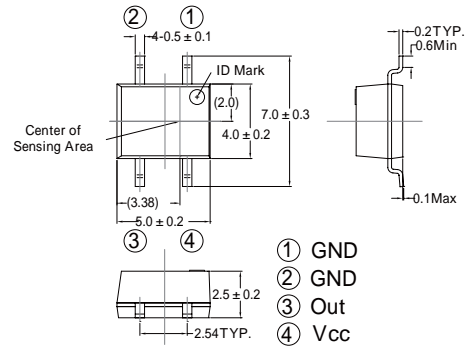
IRM-H8xx-C

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-H8xxM3-C	6.6x3x3.2	940	36 / 38 / 56	2.7~5.5	0.4	8	5
IRM-H8xxJ2-C	6.6x3x3.2	940	36 / 38 / 40	2.7~5.5	0.4	8	5

Infrared Receiver Module | Standard Burst | SMD



UNIT : mm



IRM-H9xx

Product	Size (LxWxHmm)	$\lambda_p$ (nm)	Carrier Freq. (KHz)	Supply Voltage (V)	$I_{CC}$ Typ (mA)	$L_{Center}$ (m)	$L_{45}$ (m)
IRM-H9xxT	5x4x2.5	940	36 / 38	2.7~5.5	0.4	8	5
IRM-H9xxM3	5x4x2.5	940	36 / 38 / 56	2.7~5.5	0.4	8	5

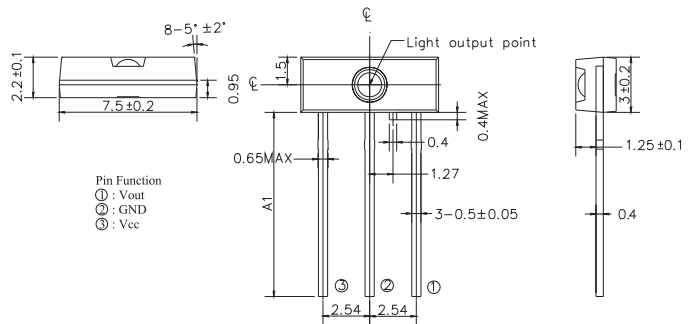
Infrared Receiver Module



Optic-Fiber Device (Photo Link) | Receiver (PLR) Component



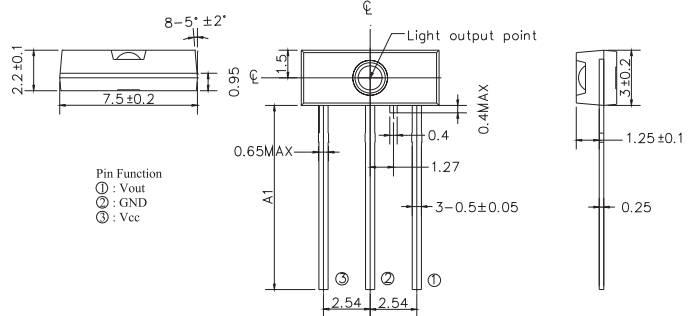
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLR135	7.5x3x2.2	-14	-27	2.4-5.5	None	16	0.4
PLR233	7.5x3x2.2	-14	-27	2.4-5.5	None	25	0.4



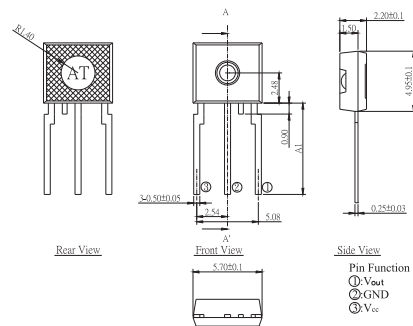
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLR137	7.5x3x2.2	-14	-27	2.4-5.5	None	16	0.25
PLR237	7.5x3x2.2	-14	-27	2.4-5.5	None	25	0.25



UNIT : mm



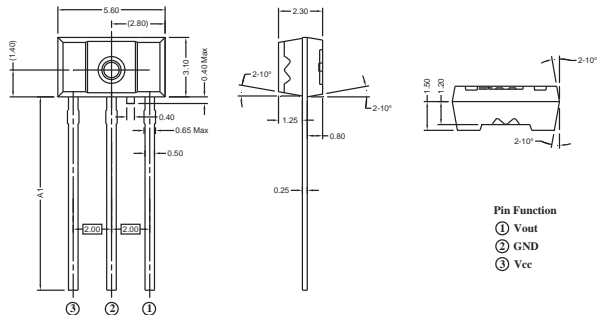
Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLR155	5.7x4.95x2.2	-14	-27	2.4-5.5	None	16	0.25
PLR253	5.7x4.95x2.2	-14	-27	2.4-5.5	None	25	0.25

Optic-Fiber Device (Photo Link)

Optic-Fiber Device (Photo Link) | Receiver (PLR) Component



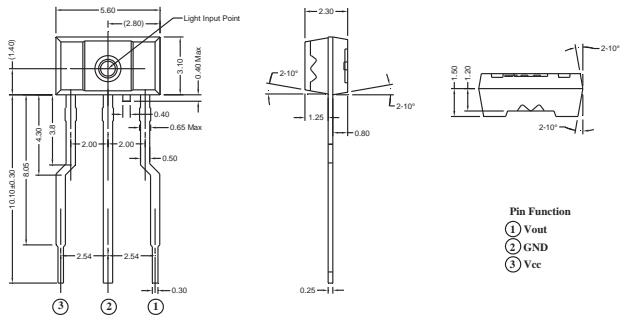
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLR162	5.6x3.1x2.3	-14	-27	2.4~5.5	None	16	0.25
PLR262	5.6x3.1x2.3	-14	-27	2.4~5.5	None	25	0.25



UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLR162M	5.6x3.1x2.3	-14	-27	2.4~5.5	None	16	0.25

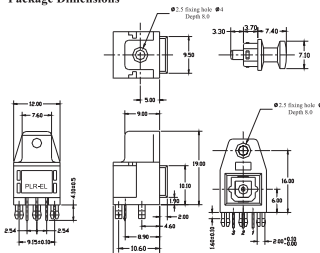
Optic-Fiber Device (Photo Link)

Optic-Fiber Device (Photo Link) | Receiver (PLR) Module



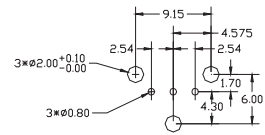
UNIT : mm

Package Dimensions



Notes: 1. All dimensions are in millimeters.  
2. 0.3mm

PCB Layout for Electrical Circuit



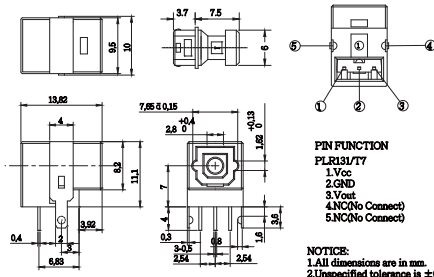
Notice:  
1. Unit:mm  
2. PCB tolerance:1.6mm

Pin Function: 1.Vout  
2.GND  
3.Vcc

Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLR135/T2	12.0x14.0x19.0	-14	-27	2.4-5.5	Yes	16	0.4



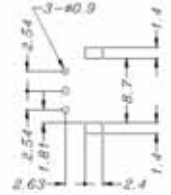
UNIT : mm



PIN FUNCTION  
PLR31/T7  
1.Vcc  
2.GND  
3.Vout  
4.NC(No Connect)  
5.NC(No Connect)

NOTICE:  
1.All dimensions are in mm.  
2.Unspecified tolerance is ±0.30mm.

PCB Layout for Electrical Circuit

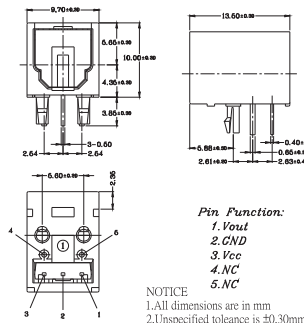


Notice:  
1. Unit:mm  
2. PCB tolerance:1.6mm

Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLR135/T7	10.0x13.82x11.1	-14	-27	2.4-5.5	Yes	16	0.4



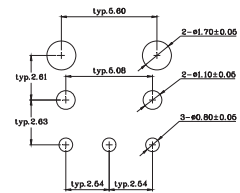
UNIT : mm



Pin Function:  
1.Vout  
2.GND  
3.Vcc  
4.NC  
5.NC

NOTICE  
1.All dimensions are in mm  
2.Unspecified tolerance is ±0.30mm

PCB Layout for Electrical Circuit



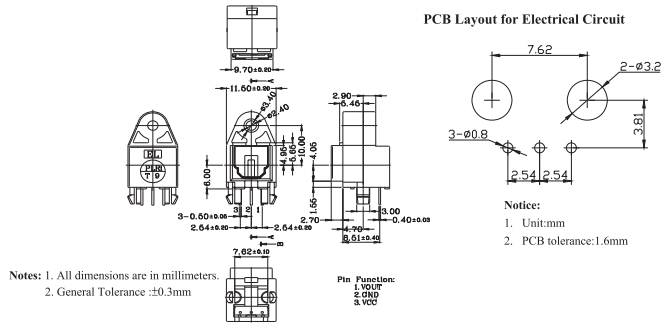
Notice:  
1. Unit:mm  
2. PCB tolerance:1.6mm

Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLR135/T8	9.7x13.5x10	-14	-27	2.4-5.5	Yes	16	0.4

Optic-Fiber Device (Photo Link) | Receiver (PLR) Module



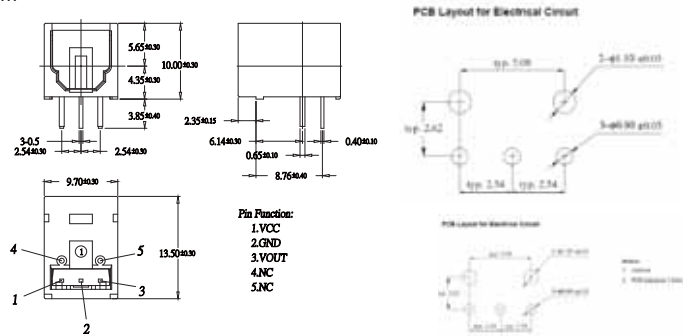
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLR135/T9	11.5x14x20	-14	-27	2.4-5.5	Yes	16	0.4



UNIT : mm



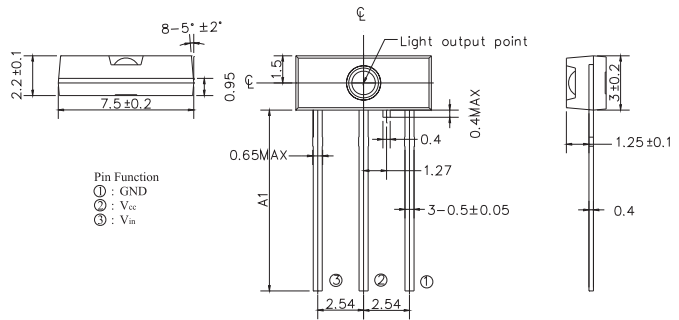
Product	Size (LxWxHmm)	Fiber Coupling Receiver Power_ Max (dBm)	Fiber Coupling Receiver Power_ Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLR135/T10	9.7x13.5x10.0	-14	-27	2.4-5.5	Yes	16	0.4

Optic-Fiber Device (Photo Link)

Optic-Fiber Device (Photo Link) | Transmitter (PLT) Component



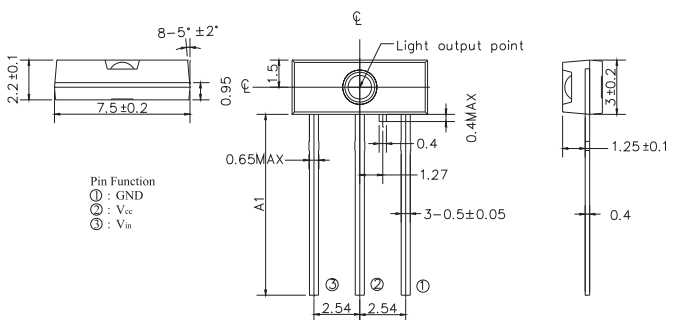
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLT132	7.5x3x2.2	-15	-21	3-5	None	16	0.4
PLT232/L5	7.5x3x2.2	-15	-21	3-5	None	25	0.4



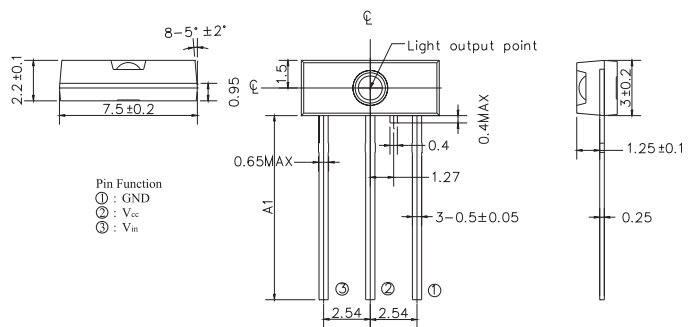
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLT133	7.5x3x2.2	-15	-21	3-5	None	16	0.4



UNIT : mm



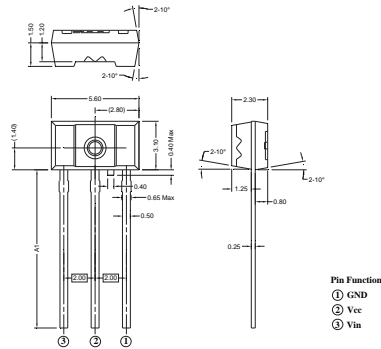
Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thickness (mm)
PLT137	7.5x3x2.2	-15	-21	3-5	None	16	0.25
PLT237	7.5x3x2.2	-15	-21	3-5	None	25	0.25

Optic-Fiber Device (Photo Link)

Optic-Fiber Device (Photo Link) | Transmitter (PLT) Component



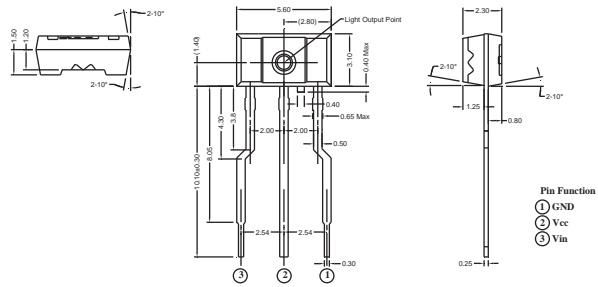
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLT262	5.6x3.1x2.3	-15	-21	3~5	None	25	0.25



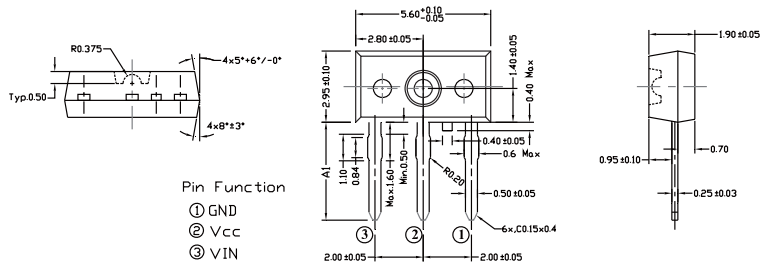
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLT262M	5.6x3.1x2.3	-15	-21	3~5	None	25	0.25



UNIT : mm



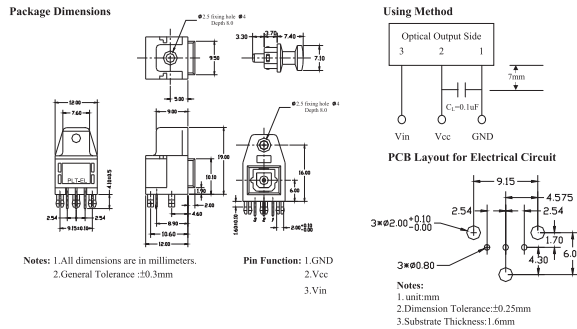
Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLT272/L5	5.6x2.95x1.9	-15	-21	3~5	None	25	0.25

Optic-Fiber Device (Photo Link)

Optic-Fiber Device (Photo Link) | Transmitter (PLT) Module



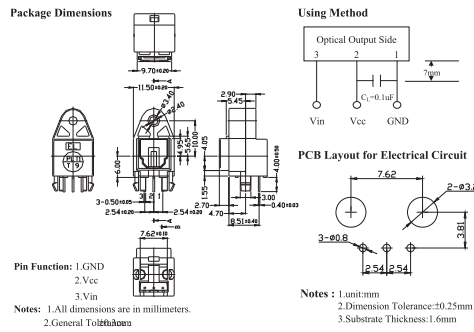
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLT133/T2	12.0x14.0x19.0	-15	-21	3~5	Yes	16	0.4



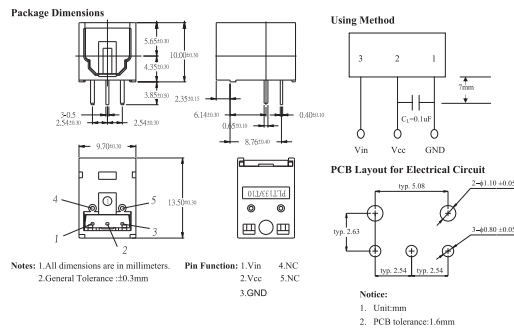
UNIT : mm



Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLT133/T9	11.5x13.5x20	-15	-21	3~5	Yes	16	0.4



UNIT : mm

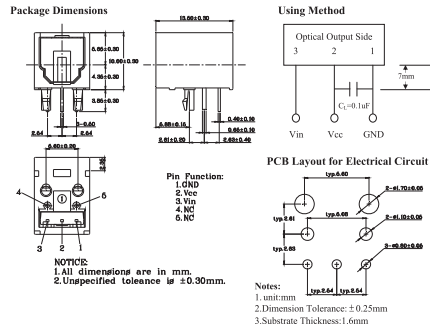


Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLT133/T10B	9.7x13.5x10.0	-15	-21	3~5	Yes	16	0.4
PLT133/T10W	9.7x13.5x10.0	-15	-21	3~5	Yes	16	0.4

Optic-Fiber Device (Photo Link) | Transmitter (PLT) Module



UNIT : mm

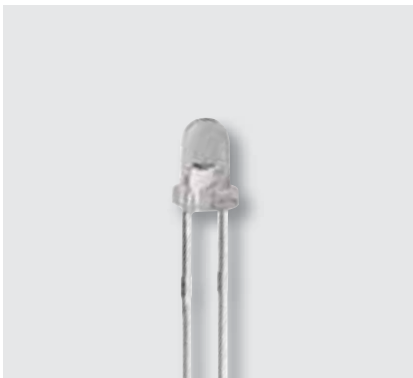


Product	Size (LxWxHmm)	Fiber Coupling Output Power_Max (dBm)	Fiber Coupling Output Power_Min (dBm)	Operation Voltage (V)	Plastic Holder	Trans - mission Speed (Mb/s)	L/F Thicknes (mm)
PLT133/T8B	9.7x13.5x10	-15	-21	3~5	Yes	16	0.4

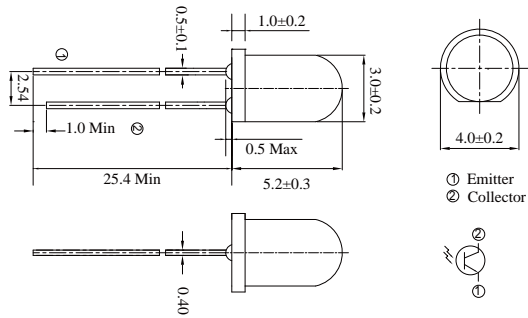
Optic-Fiber Device (Photo Link)



Optical Sensors | Ambient Light Sensor | Analog



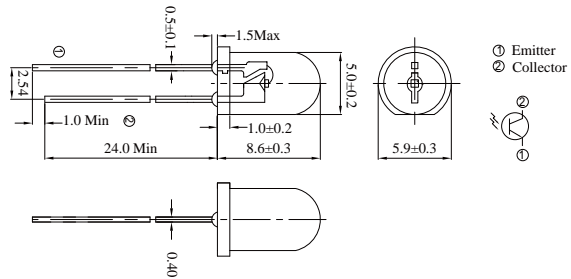
UNIT : mm



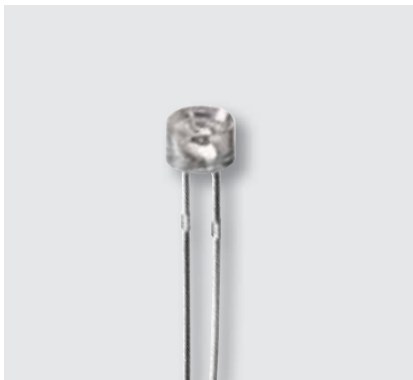
Product	Size (mm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current (uA) $E_v=100\text{lux}$	$I_{D\_Max}$ ( $\mu\text{A}$ )	Rise / Fall Time ( $\mu\text{s}$ )
ALS-PT204-6C/L177	3	2.5-5.5	630	370-670	15-100	0.1	110 / 120



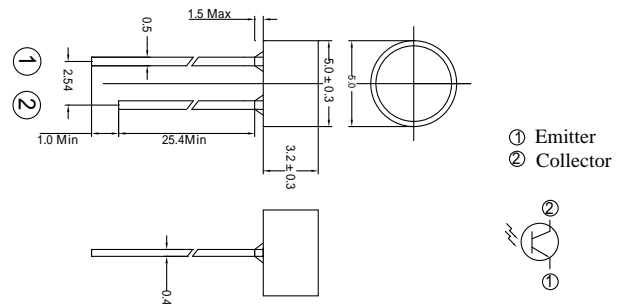
UNIT : mm



Product	Size (mm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current (uA) $E_v=100\text{lux}$	$I_{D\_Max}$ ( $\mu\text{A}$ )	Rise / Fall Time ( $\mu\text{s}$ )
ALS-PT333-3C/L177	5	2.5-5.5	560	390-700	90-160	0.1	80 / 90

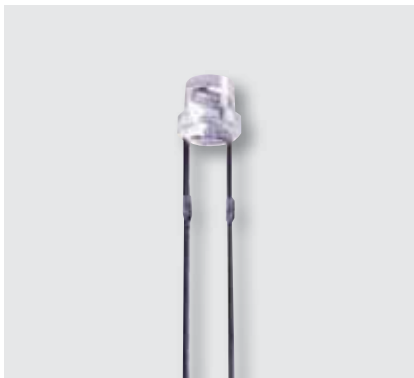


UNIT : mm

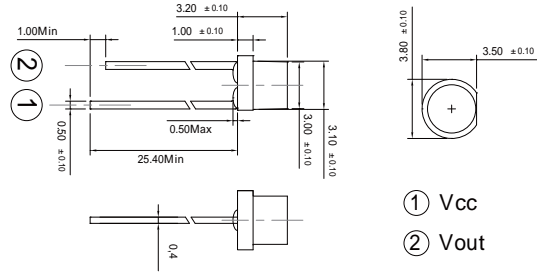


Product	Size (mm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current (uA) $E_v=100\text{lux}$	$I_{D\_Max}$ ( $\mu\text{A}$ )	Rise / Fall Time ( $\mu\text{s}$ )
ALS-PT243-3C/L177	5	2.5-5.5	630	390-700	min. 7uA	0.1	110 / 220

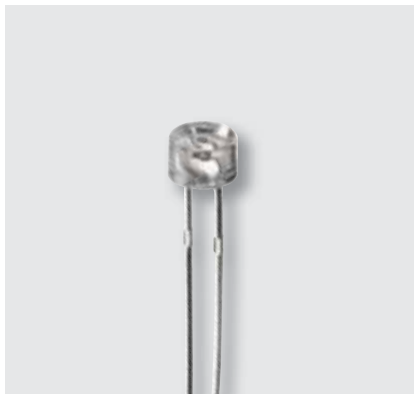
Optical Sensors | Ambient Light Sensor | Analog



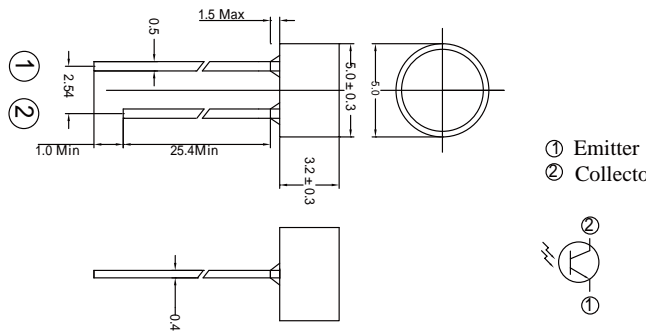
UNIT : mm



Product	Size (mm)	Supply Voltage (V)	Sensitivity λ <sub>p</sub> (nm)	Range λ (nm)	Light current (uA) Ev=100lux	I <sub>D_Max</sub> (μA)	Rise / Fall Time (μs)
ALS-PDIC144-6C/L378	3	1.8-5.5	550	390-700	22-44	0.1	360 / 1130



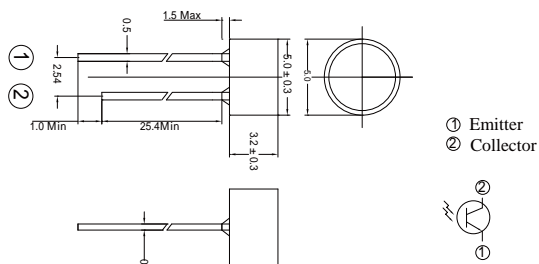
UNIT : mm



Product	Size (mm)	Supply Voltage (V)	Sensitivity λ <sub>p</sub> (nm)	Range λ (nm)	Light current (uA) Ev=100lux	I <sub>D_Max</sub> (μA)	Rise / Fall Time (μs)
ALS-PDIC243-3C	5	1.8-5.5	560	390-700	24-48	0.1	360 / 1130



UNIT : mm

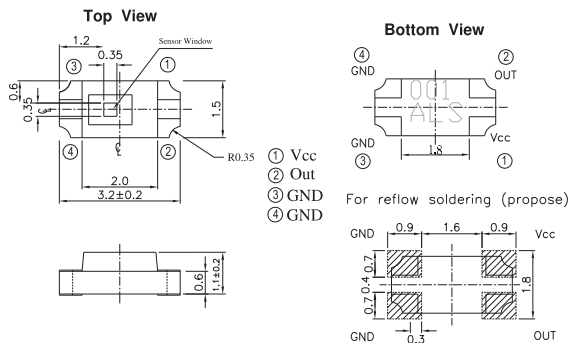


Product	Size (mm)	Supply Voltage (V)	Sensitivity λ <sub>p</sub> (nm)	Range λ (nm)	Light current (uA) Ev=100lux	I <sub>D_Max</sub> (μA)	Rise / Fall Time (μs)
ALS-PDIC243-3B	5	1.8-5.5	560	390-700	10-35	0.1	360 / 1130
ALS-PDIC243-3B/L525	5	1.8-5.5	560	390-700	5-15	0.1	360 / 1130

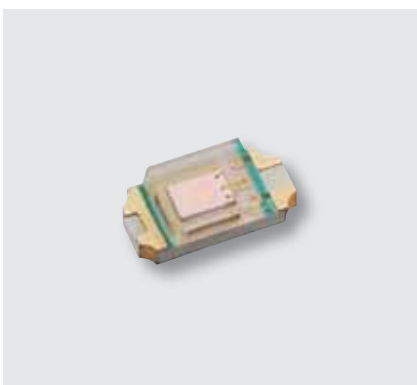
Optical Sensors | Ambient Light Sensor | Analog



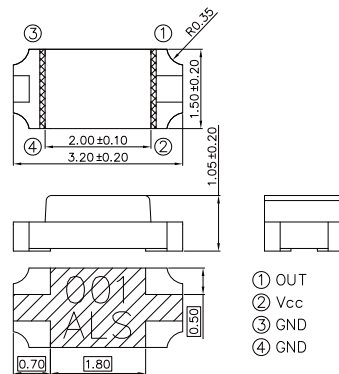
UNIT : mm



Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current ( $\mu A$ ) $E_v=100lux$	$I_{D\_Max}$ ( $\mu A$ )	Rise / Fall Time ( $\mu s$ )
ALS-PDIC15-21B/TR8	3.2x1.5x1.1	1.8~5.5	550	390~700	5~10	0.1	360 / 1130



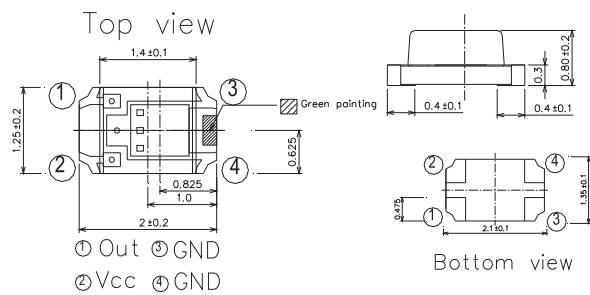
UNIT : mm



Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current ( $\mu A$ ) $E_v=100lux$	$I_{D\_Max}$ ( $\mu A$ )	Rise / Fall Time ( $\mu s$ )
ALS-PDIC15-21C/L230/TR8	3.2x1.5x1.1	2.5~5.5	590	390~700	36~95	0.1	360 / 1130

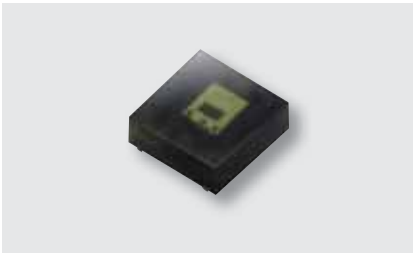


UNIT : mm

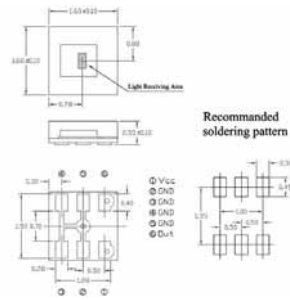


Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current ( $\mu A$ ) $E_v=100lux$	$I_{D\_Max}$ ( $\mu A$ )	Rise / Fall Time ( $\mu s$ )
ALS-PDIC17-55C/TR8	2x1.25x0.8	1.8~5.5	590	390~700	27~54	0.1	360 / 1130

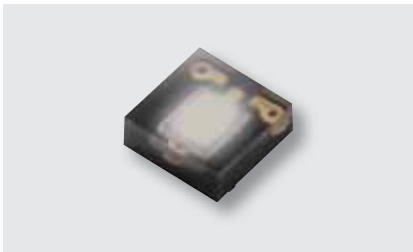
Optical Sensors | Ambient Light Sensor | Analog



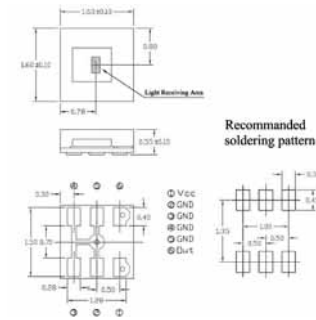
UNIT : mm



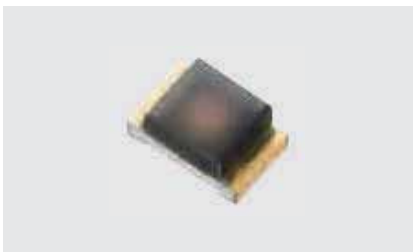
Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current (uA) Ev=100lux	I <sub>D_Max</sub> (μA)	Rise / Fall Time (μs)
ALS-PDIC17-77B/TR8	1.6x1.6x0.55	1.8~5.5	550	390~700	40~80	0.1	75 / 200



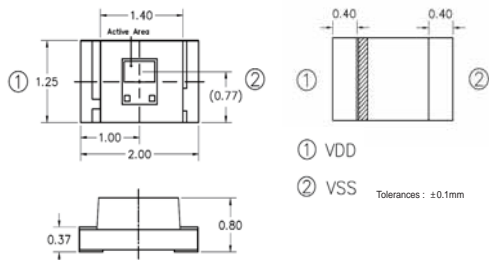
UNIT : mm



Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current (uA) Ev=100lux	I <sub>D_Max</sub> (μA)	Rise / Fall Time (μs)
ALS-PDIC17-77C/TR8	1.6x1.6x0.55	1.8~5.5	550	390~700	27~54	0.1	360 / 1130



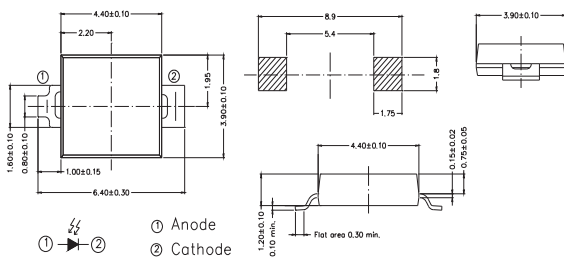
UNIT : mm



Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current (uA) Ev=100lux	I <sub>D_Max</sub> (μA)	Rise / Fall Time (μs)
ALS-PDIC17-51B/L758/TR8	2.0x1.25x0.8	2 ~ 5.5	570	480~630	43	0.01	9.7 / 12

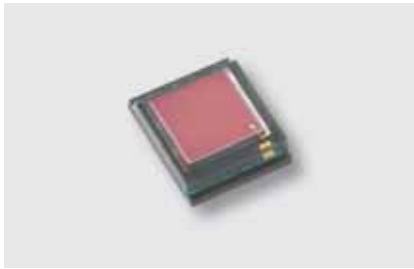


UNIT : mm

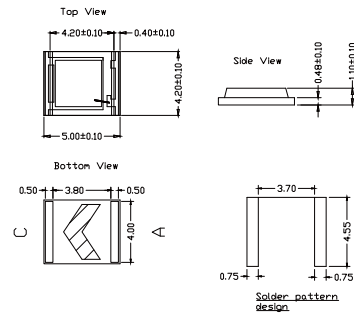


Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current (uA) Ev=100lux	I <sub>D_Max</sub> (μA)	Rise / Fall Time (μs)
ALS-PD70-01C/TR7	4.4x3.9x1.2	2.5~5.5	630	390~700	1.1	0.01	-- / --
ALS-PD70-01C/L664/TR7	4.4x3.9x1.2	2.5~5.5	540	400~640	0.25	0.01	-- / --

Optical Sensors | Ambient Light Sensor | Analog



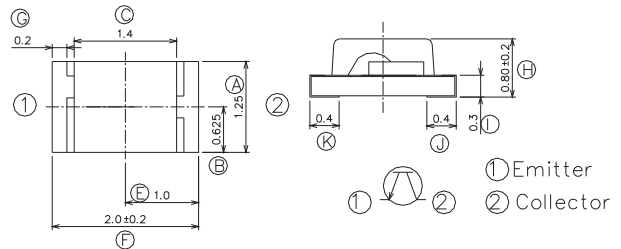
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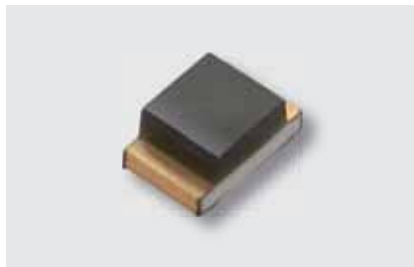
Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current ( $\mu A$ ) Ev=100lux	$I_{D\_Max}$ ( $\mu A$ )	Rise / Fall Time ( $\mu s$ )
ALS-PD50-42C/TR8	5.0x4.2x1.1	2.5~5.5	550	400~650	0.8	0.03	-- / --



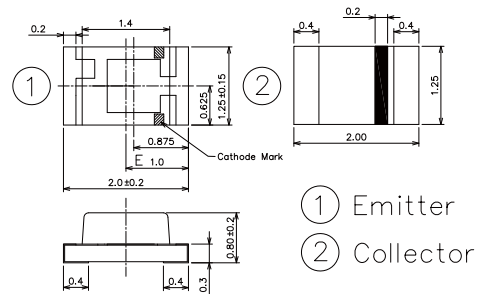
UNIT : mm



Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current ( $\mu A$ ) Ev=100lux	$I_{D\_Max}$ ( $\mu A$ )	Rise / Fall Time ( $\mu s$ )
ALS-PT17-51C/L177/TR8	2.00x1.25x0.80	2.5~5.5	630	390~700	4~11	0.1	110 / 220



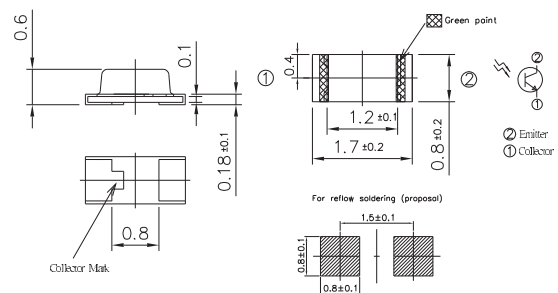
UNIT : mm



Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current ( $\mu A$ ) Ev=50lux	$I_{D\_Max}$ ( $\mu A$ )	Rise / Fall Time ( $\mu s$ )
ALS-PT17-51NB/L369/TR8	2.00x1.25x0.80	1.8~5.5	580	400~700	3.5~7	0.1	130 / 150

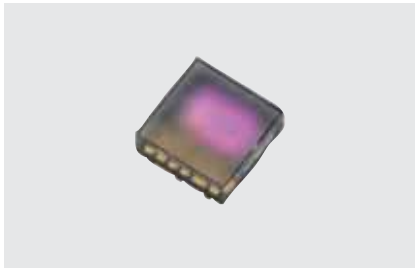


UNIT : mm

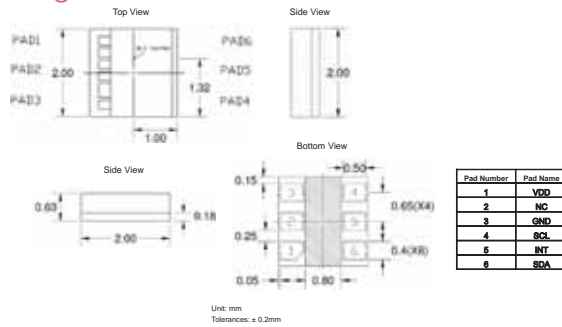


Product	Size (LxWxHmm)	Supply Voltage (V)	Sensitivity $\lambda_p$ (nm)	Range $\lambda$ (nm)	Light current ( $\mu A$ ) Ev=100lux	$I_{D\_Max}$ ( $\mu A$ )	Rise / Fall Time ( $\mu s$ )
ALS-PT19-315C/L177/TR8	1.7x0.8x0.8	2.5~5.5	630	390~700	min. 5 $\mu A$	0.1	110 / 220

Optical Sensors | Ambient Light Sensor | Digital



UNIT : mm

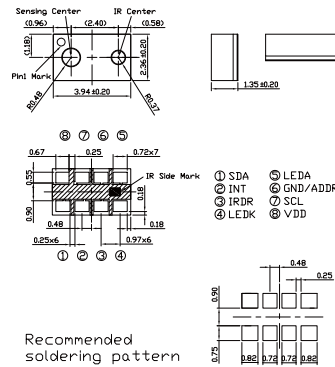


Product	Size (LxWxHmm)	Supply Voltage (V)	Maximum Detection (lux)	Range λ (nm)	Lux Resolution (lux)	ADC Resolution
ALS-DPDIC17-78C/L749/TR8	2.00 x 2.00 x 0.63	2.4 ~ 3.6	83,000	550	0.0033	10~16 bit

Optical Sensors | Proximity Sensor | Digital



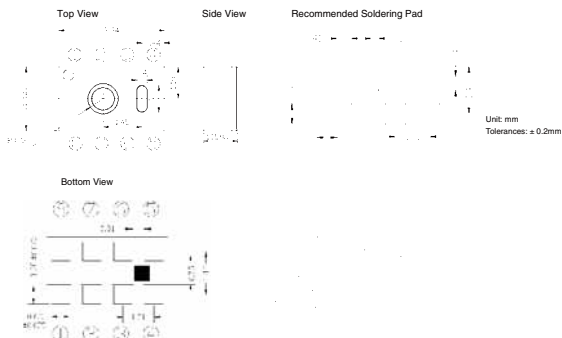
UNIT : mm



Product	Size (LxWxHmm)	Supply Voltage (V)	Supply Current (uA)	Features			
				Function	ADC resolution	Detection range	Emitting wavelength (nm)
PM-8D23-20-DF8/TR8	3.94x2.36x1.35 Pitch: 2.4mm	2.3~3.6V	DD_PS = 85 without I_LED DD_OFF =0.01	Proximity Sensing IR emitter embedded	8 bit	up to 10 cm	850nm
APM-12D23-20-DF8/TR8	3.94x2.36x1.35 Pitch: 2.4mm	2.3~3.6V	DD_ALS = 80 DD_PS = 90 without I_LED DD_OFF =0.1	Ambient light sensing Proximity Sensing IR emitter embedded	12 bit 8 bit	0.012~800 lux up to 10 cm	850nm
APM-16D18-00-DF8/TR8	3.94x2.36x1.35 Pitch: 2.4mm	1.7~3.5V	DD_ALS = 130 DD_PS = 175 without I_LED DD_OFF =0.1	Ambient light sensing Proximity Sensing IR emitter embedded	10~16 bit 16 bit	0.08m~42K lux up to 10 cm	850nm

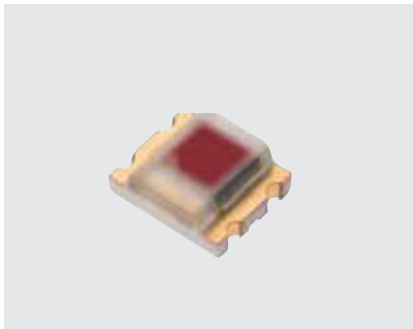


UNIT : mm

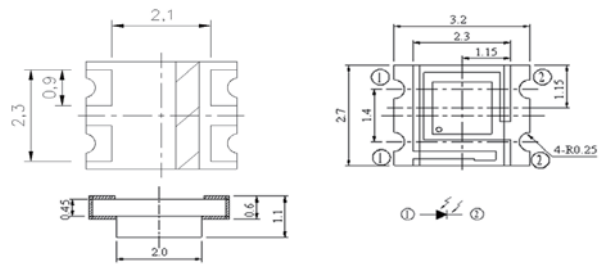


Product	Size (LxWxHmm)	Supply Voltage (V)	Supply Current (uA)	Features			
				Function	ADC resolution	Detection range	Emitting wavelength (nm)
APM-16D24-310-DF8/TR8	3.94x2.36x1.35 Pitch: 1.45mm	2.4~3.6	DD_ON = 260 DD_OFF = 2.5	Ambient light sensing Proximity sensing IR emitter embedded	10 ~ 16 bit 8 ~ 12 bit	2.3m~57K lux up to 10 cm	850nm

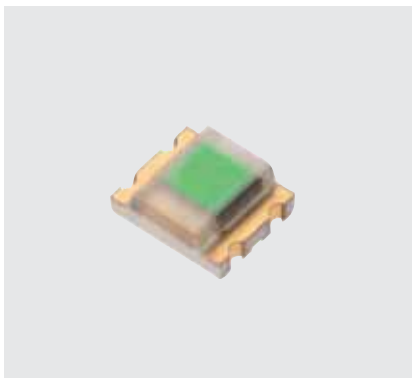
Optical Sensors | RGB Color Sensor | Single Color Sensor | Analog



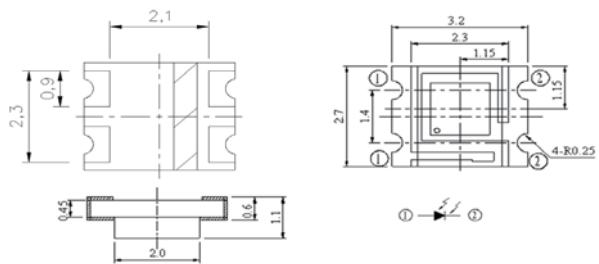
UNIT : mm



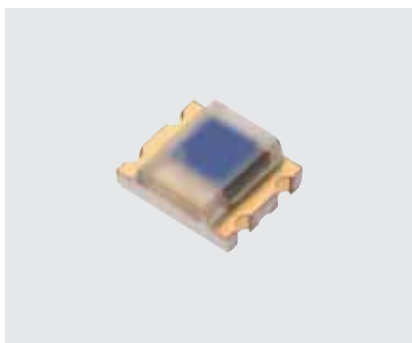
Product	Size (LxWxHmm)	Sensitivity $\lambda_p$ (nm)	$V_F$ (V)	Revers light current (Ee=100lux) / $IL^{(1)}$ ( $\mu A$ )	Revers light current (Ee=1000lux) $IL^{(2)}$ ( $\mu A$ )
CLS15-22C/L213R/TR8	3.2x2.7x1.1	620	0.5~1.3	0.091	0.83



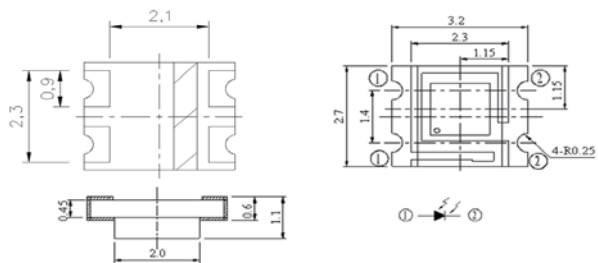
UNIT : mm



Product	Size (LxWxHmm)	Sensitivity $\lambda_p$ (nm)	$V_F$ (V)	Revers light current (Ee=100lux) / $IL^{(1)}$ ( $\mu A$ )	Revers light current (Ee=1000lux) $IL^{(2)}$ ( $\mu A$ )
CLS15-22C/L213G/TR8	3.2x2.7x1.1	550	0.5~1.3	0.082	0.72



UNIT : mm

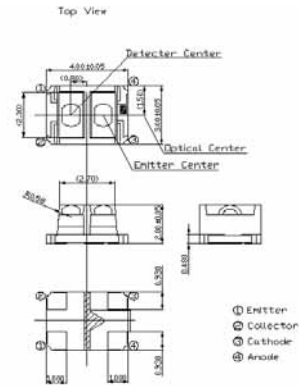


Product	Size (LxWxHmm)	Sensitivity $\lambda_p$ (nm)	$V_F$ (V)	Revers light current (Ee=100lux) / $IL^{(1)}$ ( $\mu A$ )	Revers light current (Ee=1000lux) $IL^{(2)}$ ( $\mu A$ )
CLS15-22C/L213B/TR8	3.2x2.7x1.1	470	0.5~1.3	0.046	0.39

Optical Sensors | Reflective Sensor



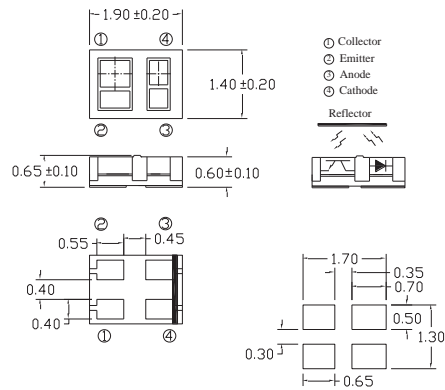
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR1502SR40A/TR8	4x3x2	1.2	1.4	--	0.06	100



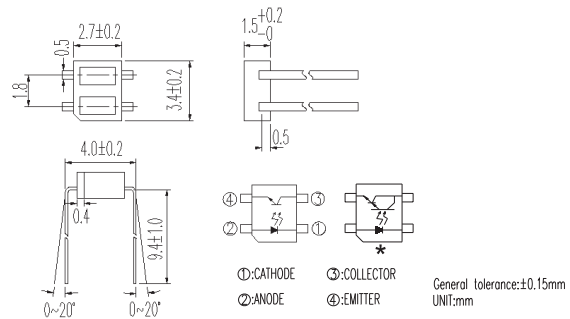
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR1504SR10A/TR	1.9x1.4x0.65	1.25	1.5	0.4	0.13	1000



UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR8307/F43	3.4x2.7x1.5	1.2	1.6	0.4	0.1	100
*ITR8307/L24/F43	3.4x2.7x1.5	1.2	1.4	--	0.5	1000

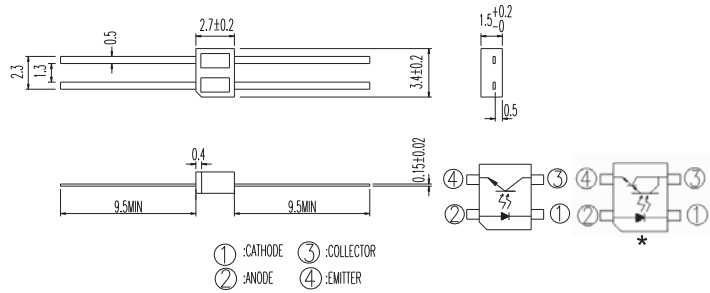
Star mark \* : Please refer to the schematic of Pin configuration with " \* " mark.



Optical Sensors | Reflective Sensor



UNIT : mm

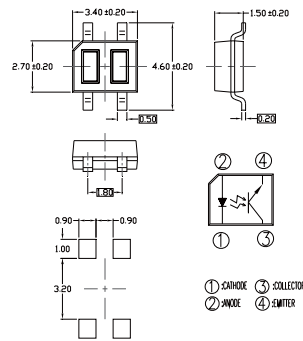


Product	Size (LxWxHmm)	V <sub>F-Typ</sub> (V)	V <sub>F-Max</sub> (V)	V <sub>CE(SAT)-Max</sub> (V)	I <sub>C(ON)-Min</sub> (mA)	I <sub>CEO-Max.</sub> (nA)
ITR8307	3.4x2.7x1.5	1.2	1.6	0.4	0.1	100
*ITR8307/L24	3.4x2.7x1.5	1.2	1.4	--	0.5	1000

Star mark \* : Please refer to the schematic of Pin configuration with " \* " mark.



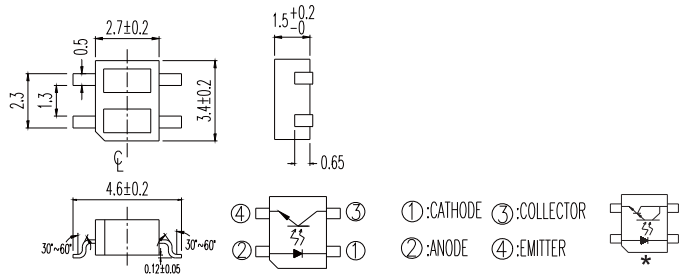
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F-Typ</sub> (V)	V <sub>F-Max</sub> (V)	V <sub>CE(SAT)-Max</sub> (V)	I <sub>C(ON)-Min</sub> (mA)	I <sub>CEO-Max.</sub> (nA)
ITR1201SR10AR/TR	3.4x2.7x1.5	1.2	1.4	--	0.1	100



UNIT : mm



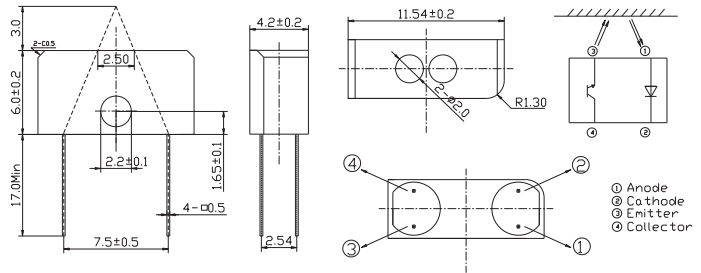
Product	Size (LxWxHmm)	V <sub>F-Typ</sub> (V)	V <sub>F-Max</sub> (V)	V <sub>CE(SAT)-Max</sub> (V)	I <sub>C(ON)-Min</sub> (mA)	I <sub>CEO-Max.</sub> (nA)
*ITR8307/L24/TR8	3.4x2.7x1.5	1.2	1.4	--	0.5	1000
ITR8307/TR8	3.4x2.7x1.5	1.2	1.6	0.4	0.1	100

Star mark \* : Please refer to the schematic of Pin configuration with " \* " mark.

Optical Sensors | Reflective Sensor



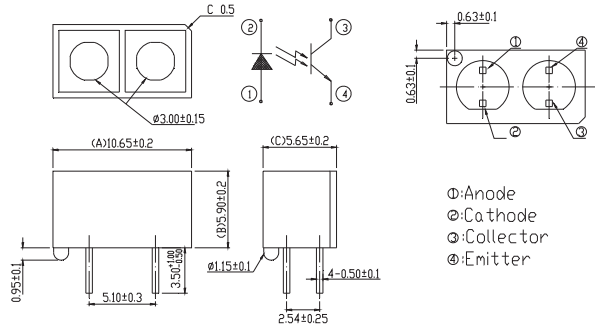
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR9904	11.54x4.2x6	1.2	1.5	0.4	0.1	100



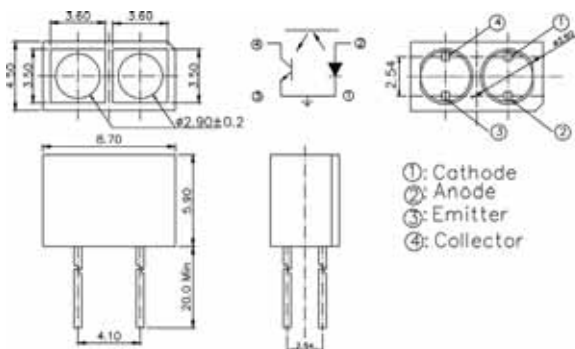
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR9908	10.65x5.65x5.9	1.2	1.5	0.4	0.5	100



UNIT : mm

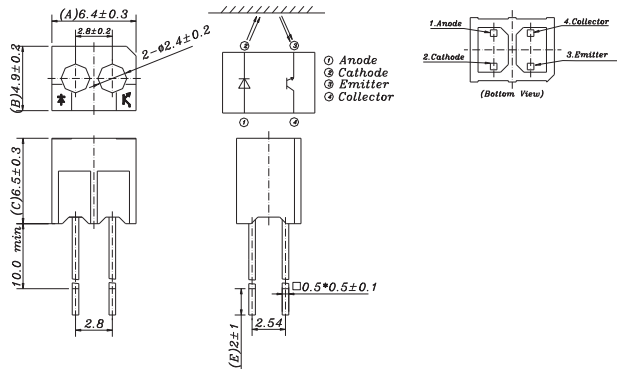


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR9909	8.7x4.5x5.9	1.2	1.5	0.4	0.2	100

Optical Sensors | Reflective Sensor



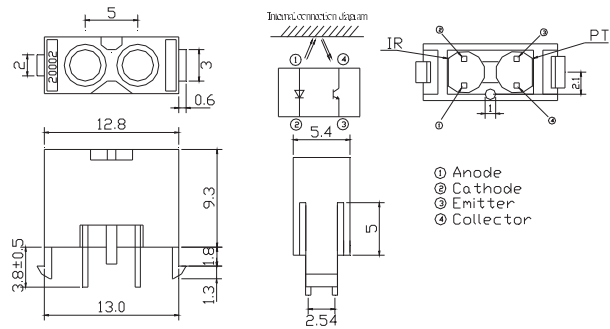
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR20001/T	6.4x4.9x6.5	1.2	1.5	0.4	0.2	100



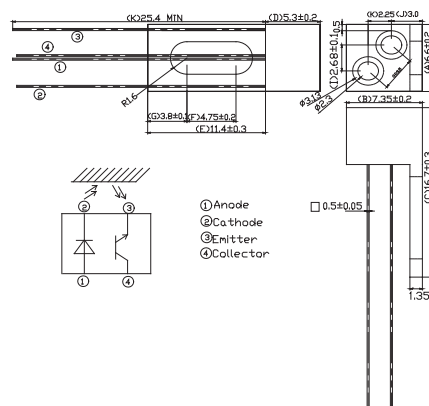
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR20002	12.8x5.4x9.3	1.2	1.5	0.4	0.04	100



UNIT : mm

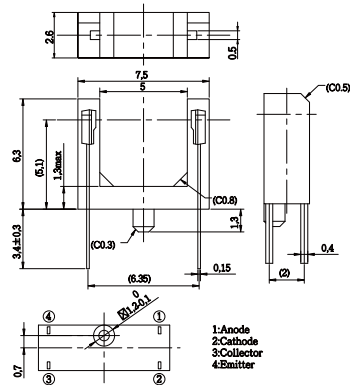


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)
ITR20501	7.35x6.6x5.3	1.2	1.5	0.4	0.02	100

Optical Sensors | Transmissive Sensor



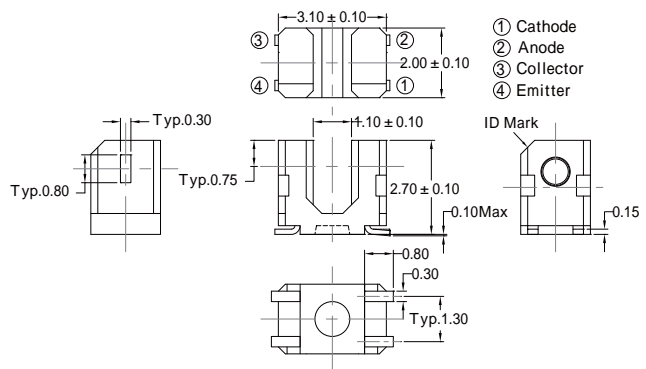
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR1203DT50A/TB	7.5x2.6x6.3	1.18	1.4	0.4	0.25	100	5



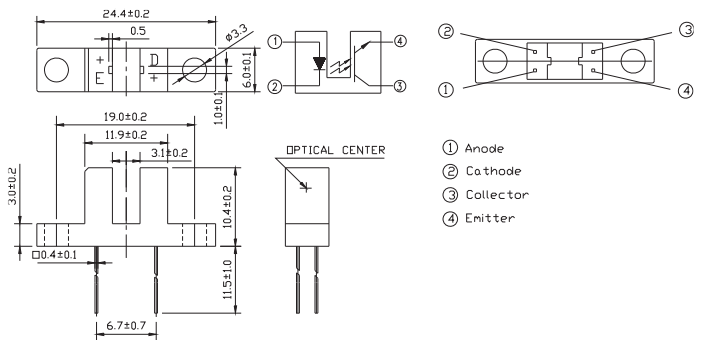
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR1205ST11A/TR	3.1x2x2.7	1.2	1.4	0.4	0.15	100	1.1

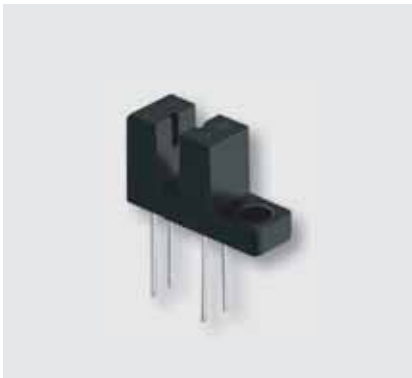


UNIT : mm

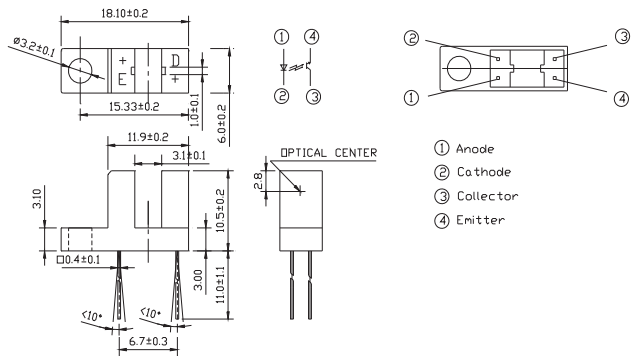


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR8102	24.4x6x10.4	1.2	1.5	0.4	0.9	100	3.1

Optical Sensors | Transmissive Sensor



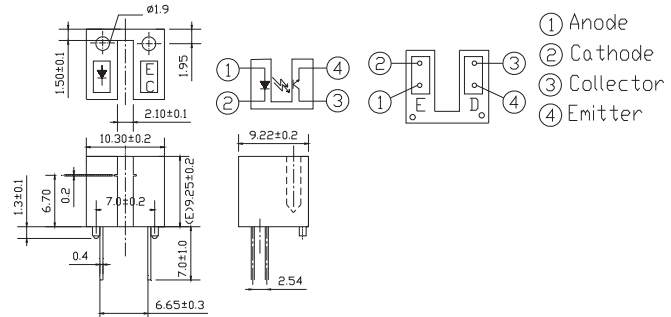
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR8104	18.1x6x10.5	1.2	1.5	0.4	0.9	100	3.1



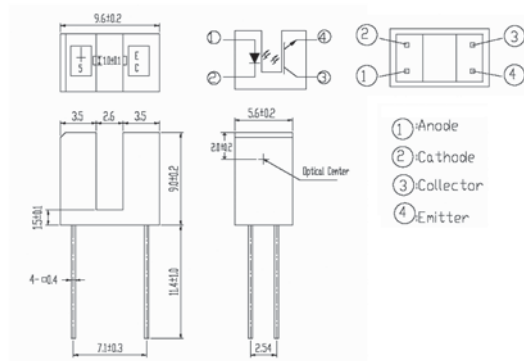
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR8010	10.3x9.22x9.25	1.2	1.6	0.4	0.5	100	2.1

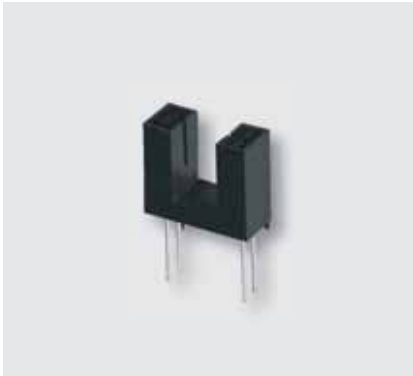


UNIT : mm

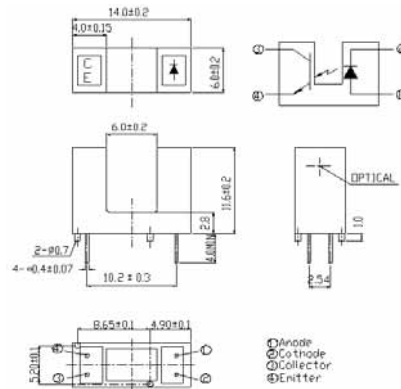


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR8105	9.6x5.6x9	1.2	1.6	0.4	0.9	100	2.6

Optical Sensors | Transmissive Sensor



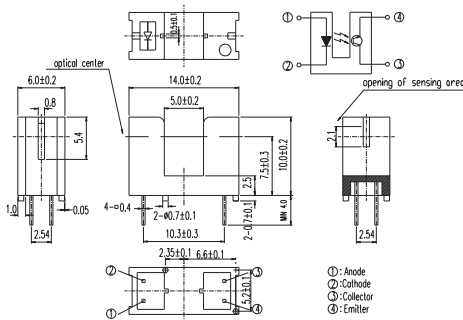
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR8402-F-A	14.0x6x11.6	1.2	1.5	0.4	0.5	100	6



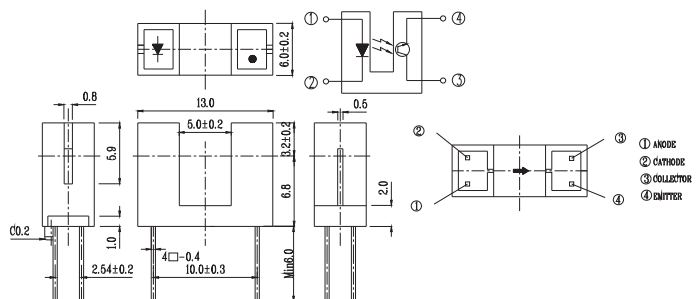
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR9606-F	14x6x10	1.2	1.5	0.4	0.5	100	5



UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR9608-F	13x6x10	1.2	1.5	0.4	0.5	100	5

Optical Sensors | Transmissive Sensor



UNIT : mm

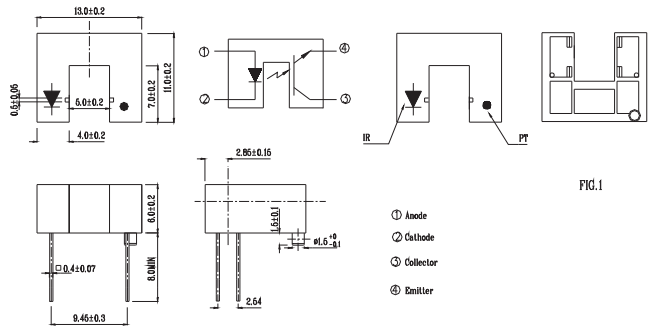
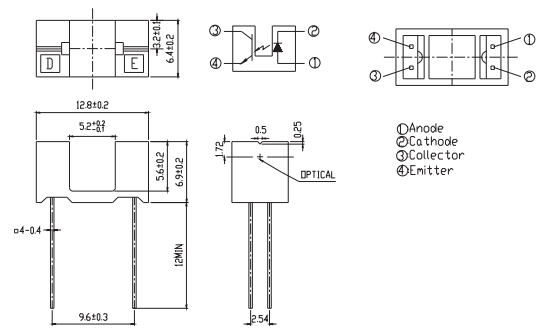


FIG.1

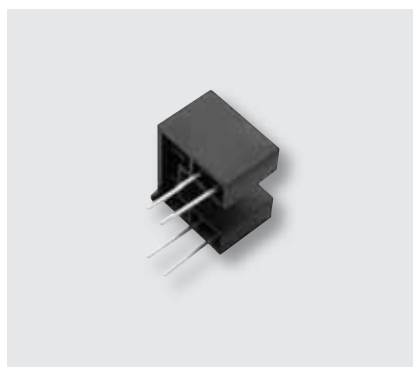
Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR9702-F	13x11x6	1.2	1.5	0.4	0.5	100	5



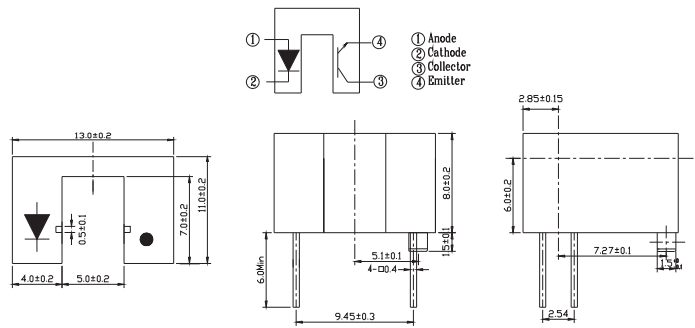
UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR9707	12.8x6.4x6.9	1.2	1.5	0.4	0.5	100	5.2



UNIT : mm



Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	V <sub>F_Max</sub> (V)	V <sub>CE(SAT)_Max</sub> (V)	I <sub>C(ON)_Min</sub> (mA)	I <sub>CEO_Max.</sub> (nA)	Gap Distance (mm)
ITR9809-F/T	13x11x8	1.2	1.5	0.4	1	100	5

Optical Sensors

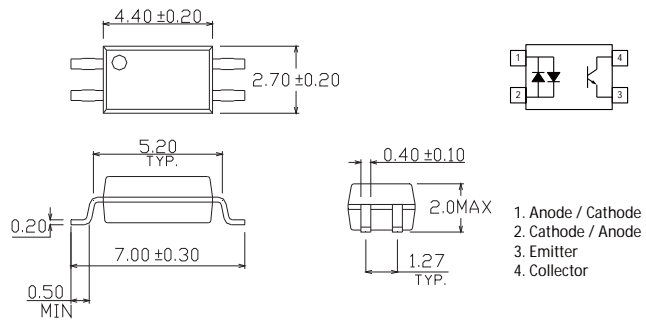




Photo Coupler | Transistor | 4Pin SSOP-AC



UNIT : mm

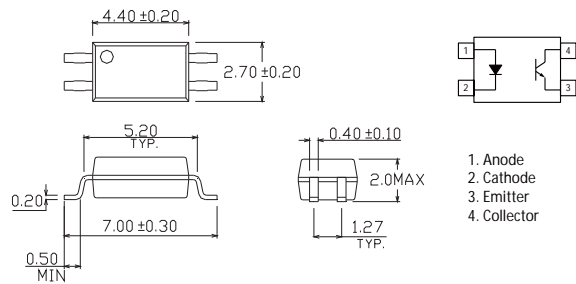


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL3H4-G	4.4x2.7x2	1.2	6 / 8	80	20~300	3750	0.2

Photo Coupler | Transistor | 4Pin SSOP-DC



UNIT : mm

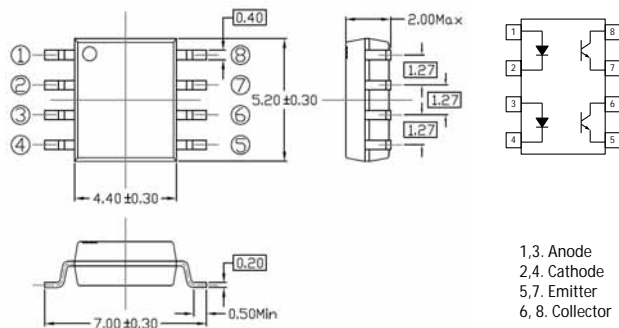


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL3H7-G	4.4x2.7x2	1.2	5 / 3	80	50~600	3750	0.2

Photo Coupler | Transistor | 8Pin SSOP-DC



UNIT : mm

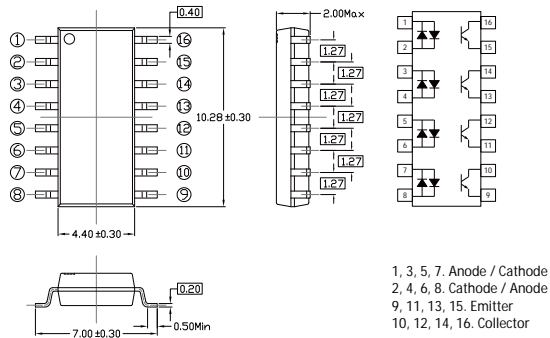


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
ELD3H7	5.2x4.4x2	1.2	5 / 3	80	50~600	3750	0.2

Photo Coupler | Transistor | 16Pin SSOP-AC



UNIT : mm



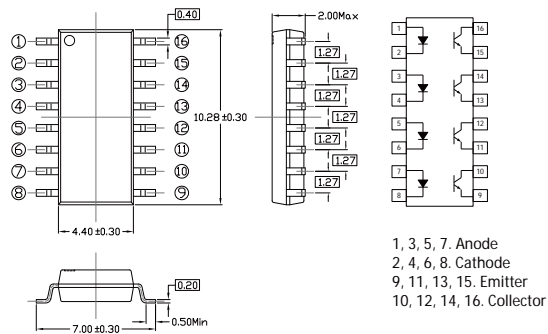
- 1, 3, 5, 7. Anode / Cathode
- 2, 4, 6, 8. Cathode / Anode
- 9, 11, 13, 15. Emitter
- 10, 12, 14, 16. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
ELQ3H4	10.28x4.4x2	1.2	5 / 3	80	20-300	3750	0.2

Photo Coupler | Transistor | 16Pin SSOP-DC



UNIT : mm



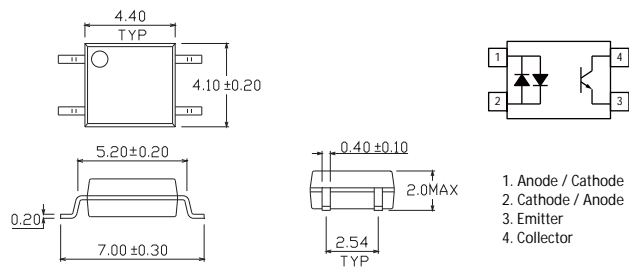
- 1, 3, 5, 7. Anode
- 2, 4, 6, 8. Cathode
- 9, 11, 13, 15. Emitter
- 10, 12, 14, 16. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
ELQ3H7	10.28x4.4x2	1.2	5 / 3	80	50-600	3750	0.2

Photo Coupler | Transistor | 4Pin SOP-AC



UNIT : mm



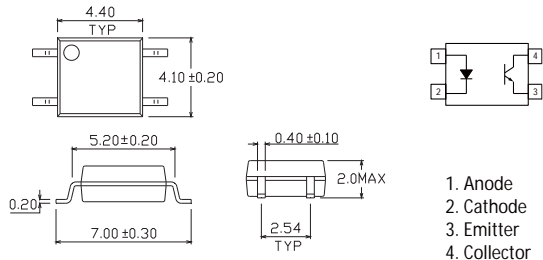
- 1. Anode / Cathode
- 2. Cathode / Anode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL354N-G	4.4x4.1x2	1.2	6 / 8	80	20-300	3750	0.2

Photo Coupler | Transistor | 4Pin SOP-DC



UNIT : mm

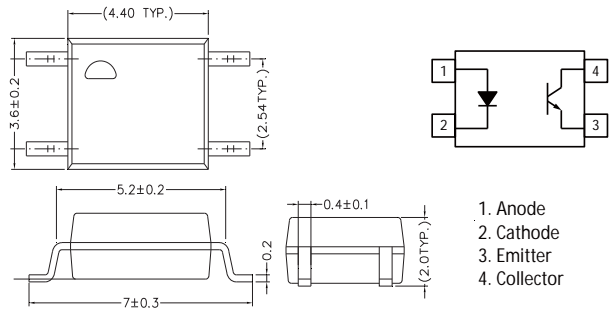


1. Anode
2. Cathode
3. Emitter
4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL357N-G	4.4x4.1x2	1.2	3 / 4	80	50~600	3750	0.2



UNIT : mm



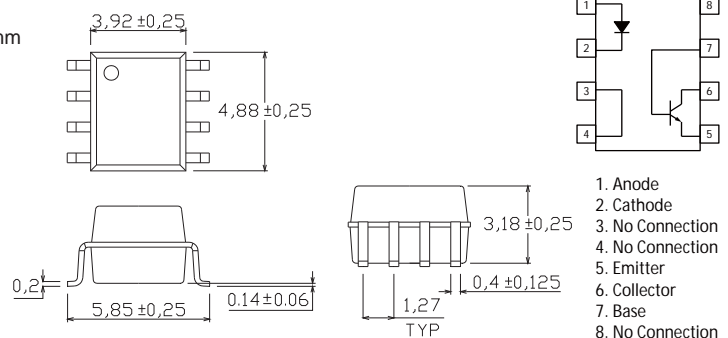
1. Anode
2. Cathode
3. Emitter
4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL121N	4.4x3.6x2	1.2	3 / 4	80	50~600	3750	0.2

Photo Coupler | Transistor | 8Pin SOP-DC



UNIT : mm



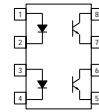
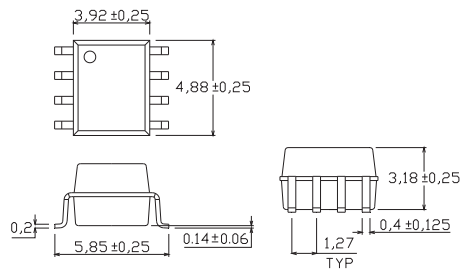
1. Anode
2. Cathode
3. No Connection
4. No Connection
5. Emitter
6. Collector
7. Base
8. No Connection

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL205	4.88x3.92x3.18	1.3	1.6 / 2.2	80	40~80	3750	0.4
EL206	4.88x3.92x3.18	1.3	1.6 / 2.2	80	63~125	3750	0.4
EL207	4.88x3.92x3.18	1.3	1.6 / 2.2	80	100~200	3750	0.4
EL208	4.88x3.92x3.18	1.3	1.6 / 2.2	80	160~320	3750	0.4
EL211	4.88x3.92x3.18	1.3	1.6 / 2.2	80	20 min.	3750	0.4
EL212	4.88x3.92x3.18	1.3	1.6 / 2.2	80	50 min.	3750	0.4
EL213	4.88x3.92x3.18	1.3	1.6 / 2.2	80	100 min.	3750	0.4
EL215	4.88x3.92x3.18	1.3	1.6 / 2.2	80	10 min.	3750	0.4
EL216	4.88x3.92x3.18	1.3	1.6 / 2.2	80	50 min.	3750	0.4
EL217	4.88x3.92x3.18	1.3	1.6 / 2.2	80	100 min.	3750	0.4

Photo Coupler | Transistor | 8Pin SOP-DC



UNIT : mm



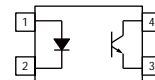
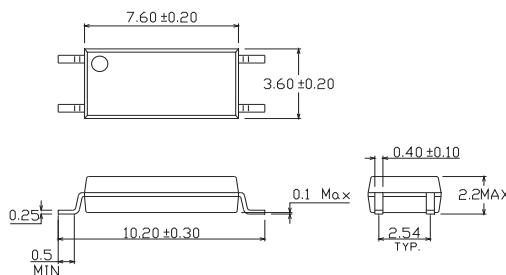
- 1,3. Anode
- 2,4. Cathode
- 5,7. Emitter
- 6, 8. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
ELD205	4.88x3.92x3.18	1.2	1.6 / 2.2	80	40~80	3750	0.4
ELD206	4.88x3.92x3.18	1.2	1.6 / 2.2	80	63~125	3750	0.4
ELD207	4.88x3.92x3.18	1.2	1.6 / 2.2	80	100~200	3750	0.4
ELD211	4.88x3.92x3.18	1.2	1.6 / 2.2	80	20 min.	3750	0.4
ELD213	4.88x3.92x3.18	1.2	1.6 / 2.2	80	100 min.	3750	0.4
ELD217	4.88x3.92x3.18	1.2	1.6 / 2.2	80	100 min.	3750	0.4

Photo Coupler | Transistor | 4Pin LSOP-DC



UNIT : mm



- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

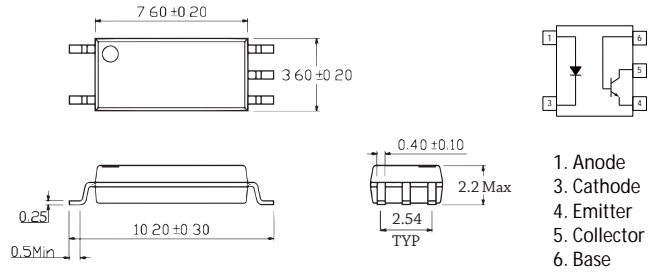
Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL1010-G	7.6x3.6x2.2	1.45	2 / 3	80	50~600	5000	0.3
EL1012-G	7.6x3.6x2.2	1.45	2 / 3	80	63~125	5000	0.3
EL1013-G	7.6x3.6x2.2	1.45	2 / 3	80	100~200	5000	0.3
EL1014-G	7.6x3.6x2.2	1.45	2 / 3	80	160~320	5000	0.3
EL1017-G	7.6x3.6x2.2	1.45	2 / 3	80	80~160	5000	0.3
EL1018-G	7.6x3.6x2.2	1.45	2 / 3	80	130~260	5000	0.3
EL1019-G	7.6x3.6x2.2	1.45	2 / 3	80	200~400	5000	0.3

Photo Coupler

Photo Coupler | Transistor | 5Pin LSOP-DC



UNIT : mm

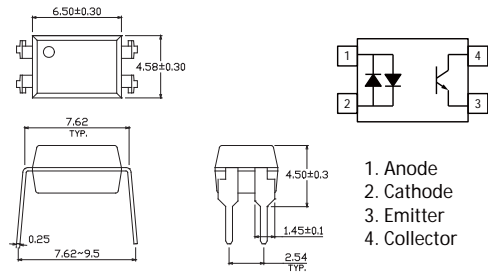


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL1110-G	7.6x3.6x2.2	1.45	2 / 3	80	50~600	5000	0.4
EL1112-G	7.6x3.6x2.2	1.45	2 / 3	80	63~125	5000	0.4
EL1113-G	7.6x3.6x2.2	1.45	2 / 3	80	100~200	5000	0.4
EL1114-G	7.6x3.6x2.2	1.45	2 / 3	80	160~320	5000	0.4
EL1116-G	7.6x3.6x2.2	1.45	2 / 3	80	100~300	5000	0.4
EL1117-G	7.6x3.6x2.2	1.45	2 / 3	80	80~160	5000	0.4
EL1118-G	7.6x3.6x2.2	1.45	2 / 3	80	130~260	5000	0.4
EL1119-G	7.6x3.6x2.2	1.45	2 / 3	80	200~400	5000	0.4

Photo Coupler | Transistor | 4Pin DIP-AC



UNIT : mm

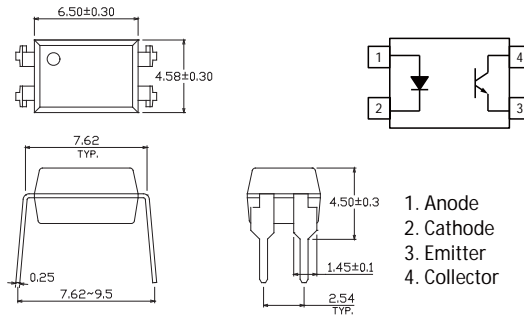


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL814	6.5x4.58x3.5	1.2	7 / 11	80	20~300	5000	0.2

Photo Coupler | Transistor | 4Pin DIP-DC



UNIT : mm

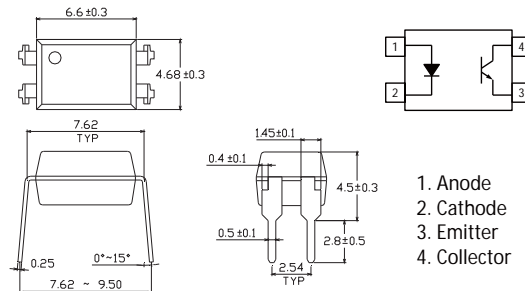


- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL816	6.5x4.58x3.5	1.2	4 / 3	80	50~600	5000	0.2
EL817	6.5x4.58x3.5	1.2	4 / 3	35	50~600	5000	0.2
EL817-G	6.5x4.58x3.5	1.2	6 / 8	80	50~600	5000	0.2
EL851	6.5x4.58x3.5	1.2	4 / 5	350	50~600	5000	0.4



UNIT : mm



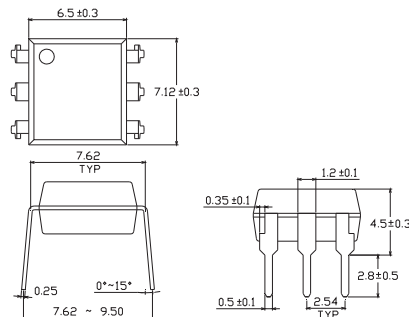
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL617	6.6x4.68x3.5	1.2	4 / 3	80	50~600	5000	0.2

Photo Coupler | Transistor | 6Pin DIP-AC



UNIT : mm



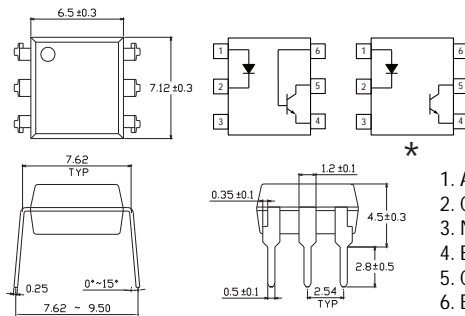
- 1. Anode / Cathode
- 2. Cathode / Anode
- 3. No Connection
- 4. Emitter
- 5. Collector
- 6. Base

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
H11AA1	7.12x6.5x3.5	1.2	10 / 10	80	20 min.	5000	0.4
H11AA2	7.12x6.5x3.5	1.2	10 / 10	80	10 min.	5000	0.4
H11AA3	7.12x6.5x3.5	1.2	10 / 10	80	50 min.	5000	0.4
H11AA4	7.12x6.5x3.5	1.2	10 / 10	80	100 min.	5000	0.4

Photo Coupler | Transistor | 6Pin DIP-DC



UNIT : mm



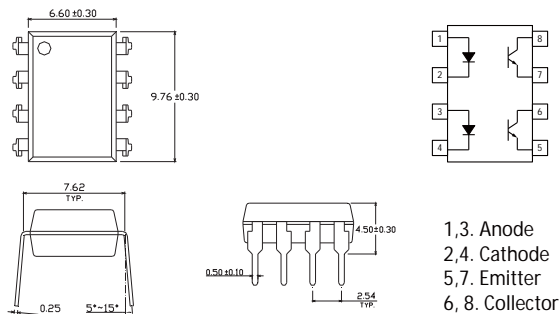
Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
4N25	7.12x6.5x3.5	1.2	3 / 3	80	20 min.	5000	0.5
4N26	7.12x6.5x3.5	1.2	3 / 3	80	20 min.	5000	0.5
4N27	7.12x6.5x3.5	1.2	3 / 3	80	10 min.	5000	0.5
4N28	7.12x6.5x3.5	1.2	3 / 3	80	10 min.	5000	0.5
4N35	7.12x6.5x3.5	1.2	10 / 9	80	100 min.	5000	0.3
4N36	7.12x6.5x3.5	1.2	10 / 9	80	100 min.	5000	0.3
4N37	7.12x6.5x3.5	1.2	10 / 9	80	100 min.	5000	0.3
4N38	7.12x6.5x3.5	1.2	10 / 9	80	20 min.	5000	1
CNY17-1	7.12x6.5x3.5	--	6 / 8	80	40~80	5000	0.3
CNY17-2	7.12x6.5x3.5	--	6 / 8	80	63~125	5000	0.3
CNY17-3	7.12x6.5x3.5	--	6 / 8	80	100~200	5000	0.3
CNY17-4	7.12x6.5x3.5	--	6 / 8	80	160~320	5000	0.3
*CNY17F-1	7.12x6.5x3.5	--	6 / 8	80	40~80	5000	0.3
*CNY17F-2	7.12x6.5x3.5	--	6 / 8	80	63~125	5000	0.3
*CNY17F-3	7.12x6.5x3.5	--	6 / 8	80	100~200	5000	0.3
*CNY17F-4	7.12x6.5x3.5	--	6 / 8	80	160~320	5000	0.3
H11A1	7.12x6.5x3.5	1.2	3 / 3	80	50 min.	5000	0.4
H11A2	7.12x6.5x3.5	1.2	3 / 3	80	20 min.	5000	0.4
H11A3	7.12x6.5x3.5	1.2	3 / 3	80	20 min.	5000	0.4
H11A4	7.12x6.5x3.5	1.2	3 / 3	80	10 min.	5000	0.4
H11A5	7.12x6.5x3.5	1.2	3 / 3	80	30 min.	5000	0.4
MCT2E	7.12x6.5x3.5	1.23	3 / 3	80	20 min.	5000	0.4
TIL111	7.12x6.5x3.5	1.22	6 / 8	80	--	5000	0.4
TIL117	7.12x6.5x3.5	--	6 / 8	80	50 min.	5000	0.4

Star mark \* : Please refer to the schematic of Pin configuration with \* \* mark

Photo Coupler | Transistor | 8Pin DIP-DC



UNIT : mm

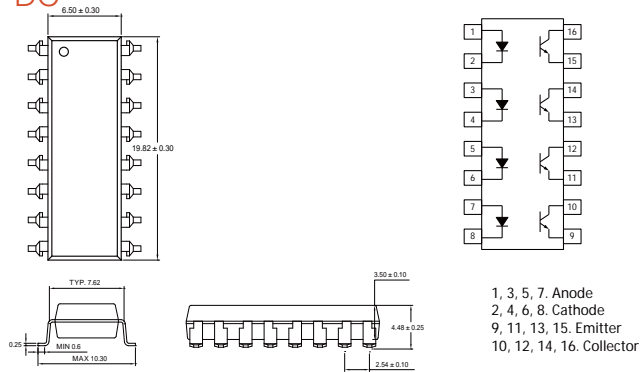


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL827	9.76x6.6 x3.5	1.2	3 / 4	80	50~600	5000	0.2

Photo Coupler | Transistor | 16Pin DIP-DC



UNIT : mm



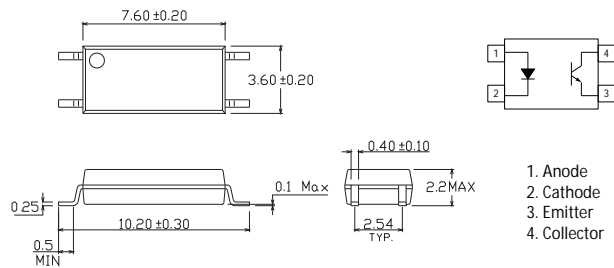
- 1, 3, 5, 7, 9, 11, 13, 15. Emitter
- 2, 4, 6, 8, 10, 12, 14, 16. Collector

Product	Size (LxWxHmm)	V <sub>F</sub> -Typ (V)	Rise / Fall Time (µs)	BV <sub>CEO</sub> -Min (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)</sub> -Max (V)
EL847	19.82x6.5x3.5	1.2	4 / 3	80	50~600	5000	0.2

Photo Coupler | Transistor Low Input Current | 4pin LSOP-DC



UNIT : mm



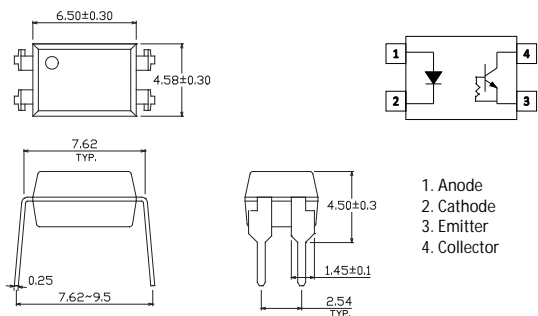
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F</sub> -Typ (V)	Rise / Fall Time (µs)	BV <sub>CEO</sub> -Min (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)</sub> -Max (V)
EL357L	7.6x3.6x2.2	1.45	7 / 8	80	63~300	5000	0.4

Photo Coupler | Transistor Low Input Current | 4pin DIP-DC



UNIT : mm



- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

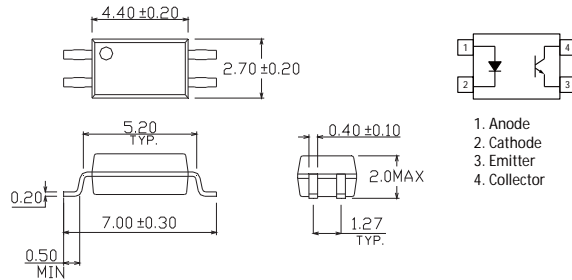
Product	Size (LxWxHmm)	V <sub>F</sub> -Typ (V)	Rise / Fall Time (µs)	BV <sub>CEO</sub> -Min (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)</sub> -Max (V)
EL8171	6.5x4.58x3.5	1.2	6 / 8	70	100~350	5000	0.2



Photo Coupler | Transistor Ultra Low Input Current | 4pin SSOP-DC



UNIT : mm

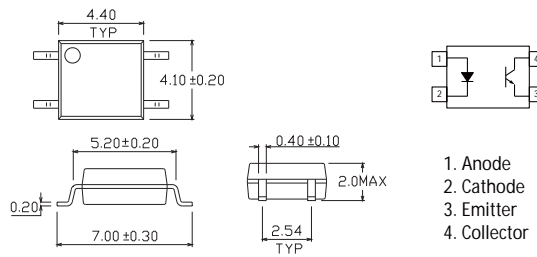


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (µs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL3H7L-G	4.4x2.7x2	1.3	8/12	80	50~600	3750	0.3

Photo Coupler | Transistor Ultra Low Input Current | 4pin SOP-DC



UNIT : mm

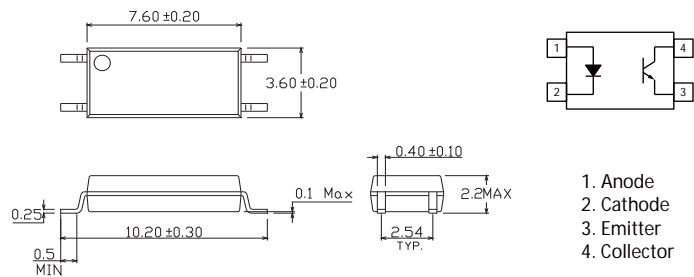


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (µs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL357NL-G	4.4x4.1x2	1.3	8/12	80	50~600	3750	0.3

Photo Coupler | Transistor Ultra Low Input Current | 4pin LSOP-DC



UNIT : mm

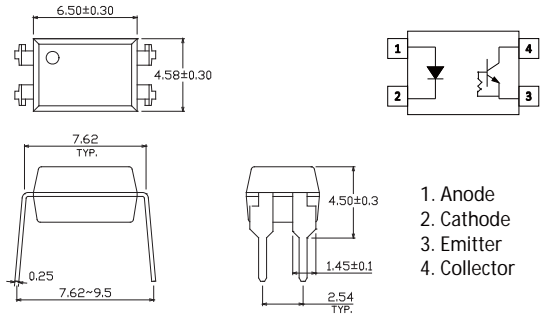


Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (µs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL101L-G	7.6x3.6x2.2	1.3	8/12	80	50~600	5000	0.3

Photo Coupler | Transistor Ultra Low Input Current | 4pin DIP-DC



UNIT : mm



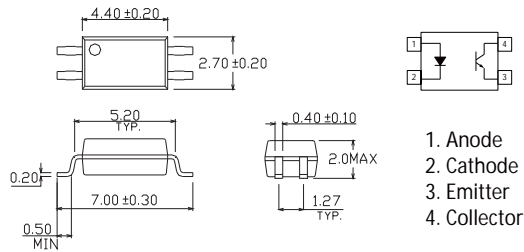
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL817L-G	6.5x4.58x3.5	1.3	8/12	80	50-600	5000	0.3

Photo Coupler | Transistor High Operating Temperature | 4pin SSOP-DC



UNIT : mm



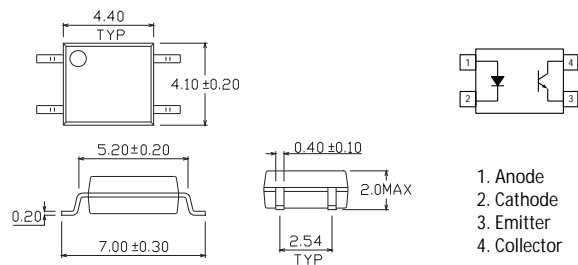
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL3H7H-G	4.4x2.7x2	1.2	6/8	80	50-600	3750	0.3

Photo Coupler | Transistor High Operating Temperature | 4pin SOP-DC



UNIT : mm



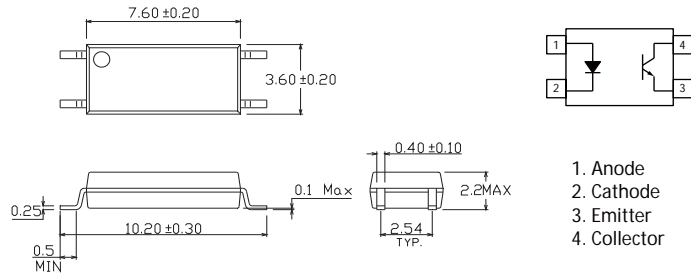
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL357NH-G	4.4x4.1x2	1.2	6/8	80	50-600	3750	0.3

Photo Coupler | Transistor High Operating Temperature | 4pin LSOP-DC



UNIT : mm



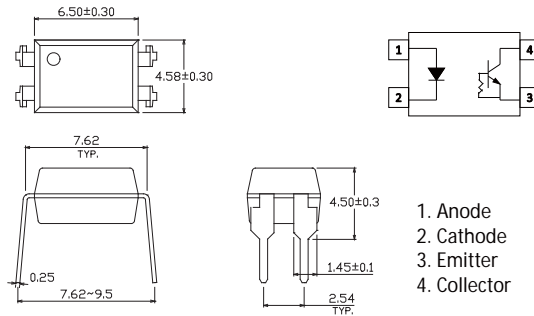
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL1010H-G	7.6x3.6x2.2	1.2	6/8	80	50-600	5000	0.3

Photo Coupler | Transistor High Operating Temperature | 4pin DIP-DC



UNIT : mm



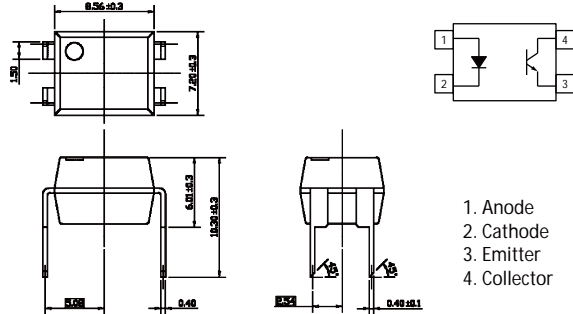
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL817H-G	6.5x4.58x3.5	1.2	6/8	80	50-600	5000	0.3

Photo Coupler | Transistor High Isolation | 4pin DIP-DC



UNIT : mm



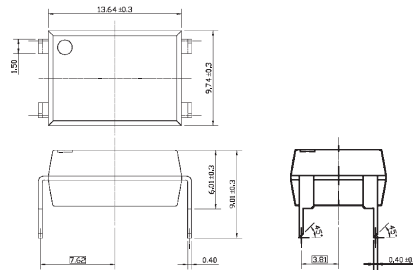
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
CNY64	8.56x7.2x6.01	1.6	3 / 5	80	50-300	8200	0.3

Photo Coupler | Transistor High Isolation | 4pin DIP-DC



UNIT : mm



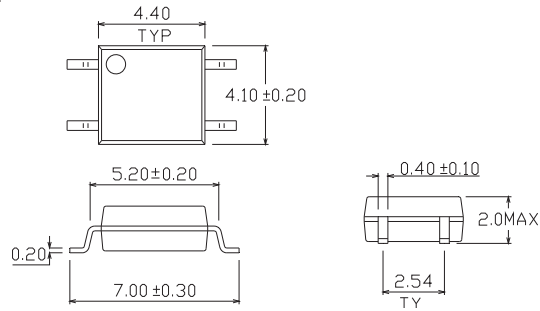
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F-Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO-Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)-Max</sub> (V)
CNY65	13.64x9.74x6.01	1.6	3 / 5	80	50-300	8200	0.3

Photo Coupler | Darlington Transistor | 4Pin SOP-DC



UNIT : mm



- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

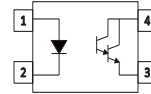
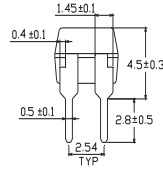
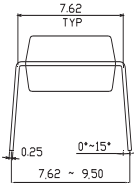
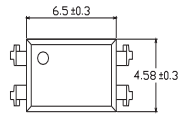
Product	Size (LxWxHmm)	V <sub>F-Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO-Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)-Max</sub> (V)
EL452-G	4.4x4.1x2	1.2	80 / 10	350	1000 min.	3750	1.5

Photo Coupler

Photo Coupler | Darlington Transistor | 4Pin DIP-DC



UNIT : mm

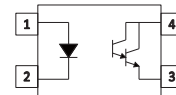
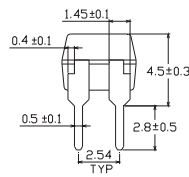
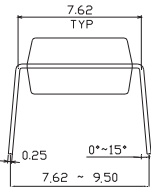
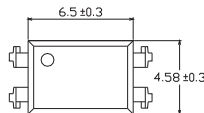


- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL815	6.5x4.58x3.5	1.2	60 / 53	35	600~7500	5000	1



UNIT : mm



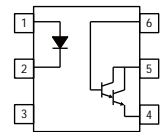
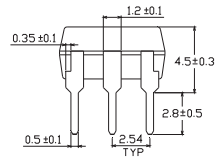
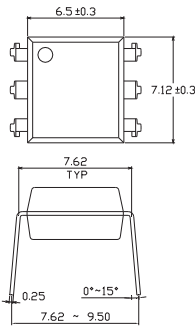
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (μs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL852	6.5x4.58x3.5	1.2	300 / 100	350	1000~15000	5000	1.2

Photo Coupler | Darlington Transistor | 6Pin DIP-DC



UNIT : mm



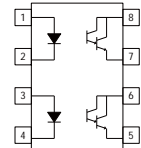
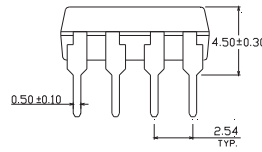
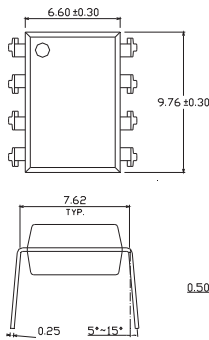
- 1. Anode
- 2. Cathode
- 3. No Connection
- 4. Emitter
- 5. Collector
- 6. Base

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (µs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
4N29	7.12x6.5x3.5	1.2	5 / 40	55	100 min.	5000	1
4N30	7.12x6.5x3.5	1.2	5 / 40	55	100 min.	5000	1
4N31	7.12x6.5x3.5	1.2	5 / 40	55	50 min.	5000	1.2
4N32	7.12x6.5x3.5	1.2	5 / 100	55	500 min.	5000	1
4N33	7.12x6.5x3.5	1.2	5 / 100	55	500 min.	5000	1
H11B1	7.12x6.5x3.5	1.2	25 / 18	55	500 min.	5000	1
H11B2	7.12x6.5x3.5	1.2	25 / 18	55	200 min.	5000	1
H11B3	7.12x6.5x3.5	1.2	25 / 18	55	100 min.	5000	1
H11B255	7.12x6.5x3.5	1.2	25 / 18	55	100 min.	5000	1
TIL113	7.12x6.5x3.5	1.2	5 / 100	55	300 min.	5000	1.2

Photo Coupler | Darlington Transistor | 8Pin DIP-DC



UNIT : mm



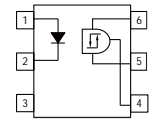
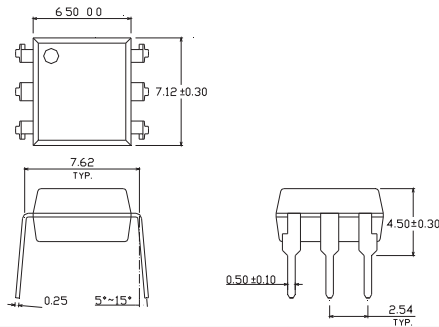
- 1, 3. Anode
- 2, 4. Cathode
- 5, 7. Emitter
- 6, 8. Collector

Product	Size (LxWxHmm)	V <sub>F_Typ</sub> (V)	Rise / Fall Time (µs)	BV <sub>CEO_Min</sub> (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)_Max</sub> (V)
EL825	9.76x6.6x3.5	1.2	60 / 53	40	600-7500	5000	1

Photo Coupler | Schmitt Trigger | 6Pin DIP-DC



UNIT : mm



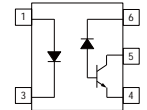
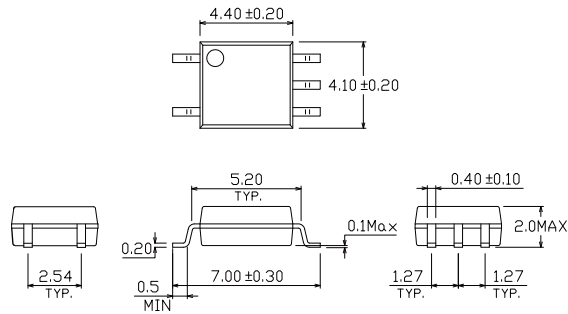
- 1. Anode
- 2. Cathode
- 3. No Connection
- 4.  $V_O$
- 5. GND
- 6.  $V_{CC}$

Product	Size (LxWxHmm)	Rise / Fall Time ( $\mu$ s)	Supply Voltage (V)	Viso ( $V_{rms}$ )	$I_{FT}$ (mA)	$I_{CC\_Max}$ (mA)	$I_O$ (mA)
H11L1	7.12x6.5x3.5	0.1 / 0.1	3~15	5000	1.6	5	50 max.
H11L2	7.12x6.5x3.5	0.1 / 0.1	3~15	5000	10	5	50 max.
H11L3	7.12x6.5x3.5	0.1 / 0.1	3~15	5000	5	5	50 max.

Photo Coupler | High Speed | 5Pin SOP-DC



UNIT : mm

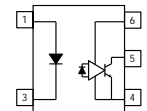
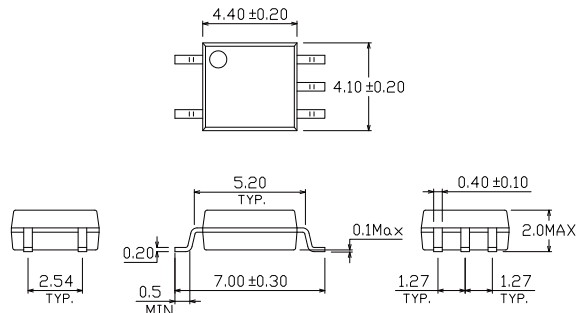


- 1: Anode
- 3: Cathode
- 4: GND
- 5:  $V_{out}$
- 6:  $V_{CC}$

Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	CTR (%)	Viso ( $V_{rms}$ )	CMR (V/us)	$I_O$ (mA)
ELM452	4.4x4.1x2	800 / 800	30 max.	20~50	3750	5000	8
ELM453	4.4x4.1x2	800 / 800	30 max.	20~50	3750	15000	8
ELM453L	4.4x4.1x2	800 / 800	30 max.	20~50	3750	15000	8



UNIT : mm



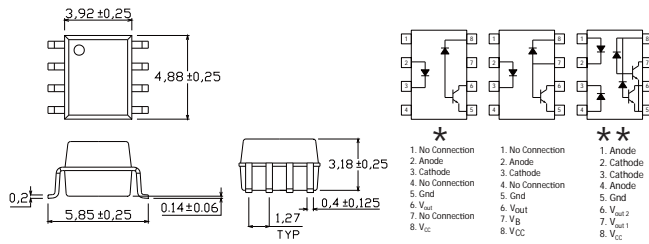
- 1: Anode
- 3: Cathode
- 4: GND
- 5:  $V_{out}$
- 6:  $V_{CC}$

Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	$I_{FT}$ (mA)	Viso ( $V_{rms}$ )	CMR (V/us)	$I_O$ (mA)
ELM600	4.4x4.1x2	100 / 100	7 max.	5	3750	-	50 max.
ELM601	4.4x4.1x2	100 / 100	7 max.	5	3750	5000	50 max.
ELM611	4.4x4.1x2	100 / 100	7 max.	5	3750	20000	50 max.

Photo Coupler | High Speed | 8Pin SOP-DC



UNIT : mm

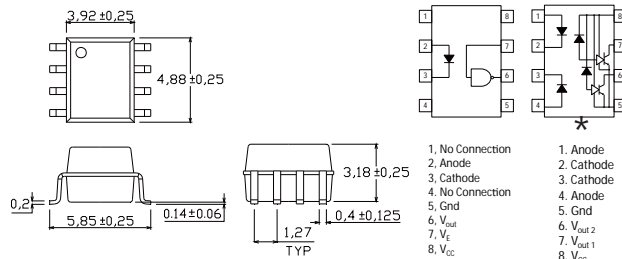


Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	CTR (%)	Viso (V <sub>rms</sub> )	CMR (V/us)	I <sub>O</sub> (mA)
*EL0452	4.88x3.92x3.18	1000 / 1000	30 max.	19-50	3750	1000	8
*EL0453	4.88x3.92x3.18	1000 / 1000	30 max.	19-50	3750	15000	8
EL0500	4.88x3.92x3.18	2000 / 2000	30 max.	7-50	3750	1000	8
EL0501	4.88x3.92x3.18	1000 / 1000	30 max.	19-50	3750	1000	8
EL050L	4.88x3.92x3.18	800 / 800	30 max.	20-50	3750	15000	8
**EL0530	4.88x3.92x3.18	2000 / 2000	30 max.	7-50	3750	1000	8
**EL0531	4.88x3.92x3.18	1000 / 1000	30 max.	19-50	3750	1000	8

Star mark \* : Please refer to the schematic of Pin configuration with " \* \* \* \*\* " mark



UNIT : mm

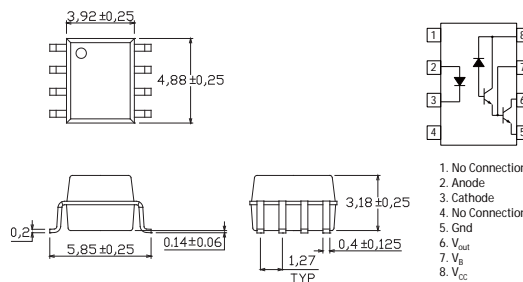


Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	I <sub>FT</sub> (mA)	Viso (V <sub>rms</sub> )	CMR (V/us)	I <sub>O</sub> (mA)
EL0600	4.88x3.92x3.18	75 / 75	7 max.	5	3750	--	50 max.
EL0601	4.88x3.92x3.18	75 / 75	7 max.	5	3750	5000	50 max.
EL0611	4.88x3.92x3.18	75 / 75	7 max.	5	3750	10000	50 max.
EL060L	4.88x3.92x3.18	75 / 75	7 max.	5	3750	10000	50 max.
*EL0630	4.88x3.92x3.18	100 / 100	7 max.	5	3750	5000	50 max.
*EL0631	4.88x3.92x3.18	100 / 100	7 max.	5	3750	10000	50 max.

Star mark \* : Please refer to the schematic of Pin configuration with " \* " mark



UNIT : mm



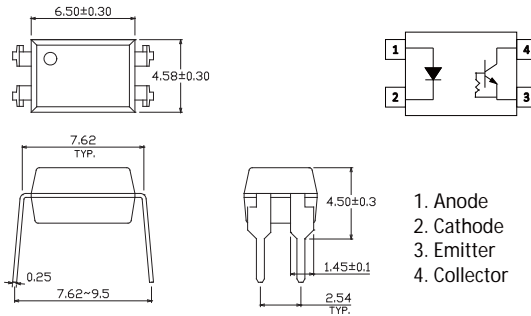
Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	CTR (%)	Viso (V <sub>rms</sub> )	CMR (V/us)	I <sub>O</sub> (mA)
EL0700	4.88x3.92x3.18	3000 / 8000	7	2000 typ.	3750	1000	60 max
EL0701	4.88x3.92x3.18	11000 / 20000	18	2500 typ.	3750	1000	60 max



Photo Coupler | High Speed | 4pin DIP-DC



UNIT : mm



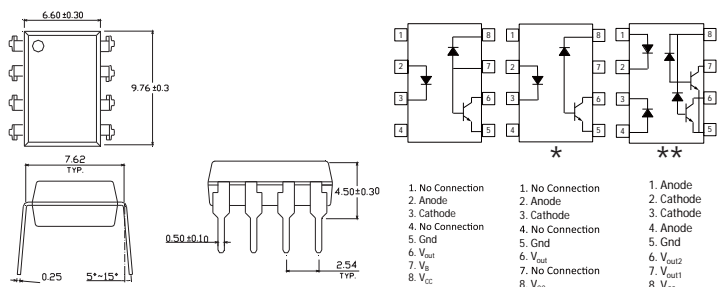
- 1. Anode
- 2. Cathode
- 3. Emitter
- 4. Collector

Product	Size (LxWxHmm)	V <sub>F</sub> _Typ (V)	Rise / Fall Time (µs)	BV <sub>CEO</sub> Min (V)	CTR (%)	Viso (V <sub>rms</sub> )	V <sub>CE(SAT)</sub> Max (V)
EL2514-G	6.5x4.58x3.5	1.2	15/15	40	50~200	5000	0.35

Photo Coupler | High Speed | 8Pin DIP-DC



UNIT : mm



- 1. No Connection
- 2. Anode
- 3. Cathode
- 4. No Connection
- 5. Gnd
- 6. V<sub>cc</sub>
- 7. V<sub>cc</sub>
- 8. V<sub>cc</sub>

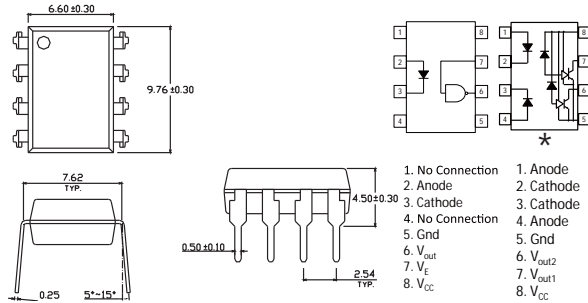
Product	Size (LxWxHmm)	t <sub>PHL</sub> / t <sub>PLH</sub> (ns)	Supply Voltage (V)	CTR (%)	Viso (V <sub>rms</sub> )	CMR (V/us)	I <sub>O</sub> (mA)
6N135	9.76x6.6x3.5	2000 / 2000	30 max.	7~50	5000	1000	8
6N136	9.76x6.6x3.5	1000 / 1000	30 max.	19~50	5000	1000	8
*EL4502	9.76x6.6x3.5	1000 / 1000	30 max.	19~50	5000	1000	8
*EL4503	9.76x6.6x3.5	1000 / 1000	30 max.	19~50	5000	15000	8
*EL4504	9.76x6.6x3.5	400 / 400	30 max.	25~60	5000	15000	8
**EL2530	9.76x6.6x3.5	2000 / 2000	30 max.	7~50	5000	1000	8
**EL2531	9.76x6.6x3.5	1000 / 1000	30 max.	19~50	5000	1000	8

Star mark \* : Please refer to the schematic of Pin configuration with " \* " " \*\* " mark

Photo Coupler | High Speed | 8Pin DIP-DC



UNIT : mm

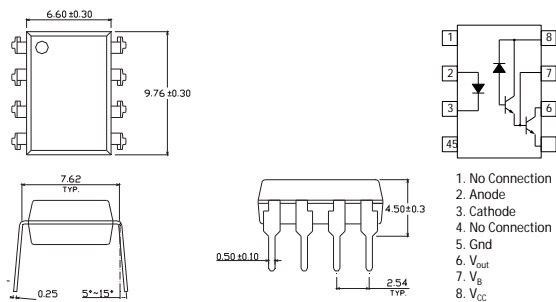


Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	I <sub>FT</sub> (mA)	Viso (V <sub>rms</sub> )	CMR (V/us)	I <sub>O</sub> (mA)
6N137	9.76x6.6x3.5	75 / 75	7 max.	5	5000	-	50 max.
EL2601	9.76x6.6x3.5	75 / 75	7 max.	5	5000	5000	50 max.
EL2611	9.76x6.6x3.5	75 / 75	7 max.	5	5000	10000	50 max.
EL260L	9.76x6.6x3.5	75 / 75	7 max	5	5000	10000	50 max
*EL2630	9.76x6.6x3.5	100 / 100	7 max.	5	5000	5000	50 max.
*EL2631	9.76x6.6x3.5	100 / 100	7 max.	5	5000	10000	50 max.

Star mark \* : Please refer to the schematic of Pin configuration with " \* " mark



UNIT : mm



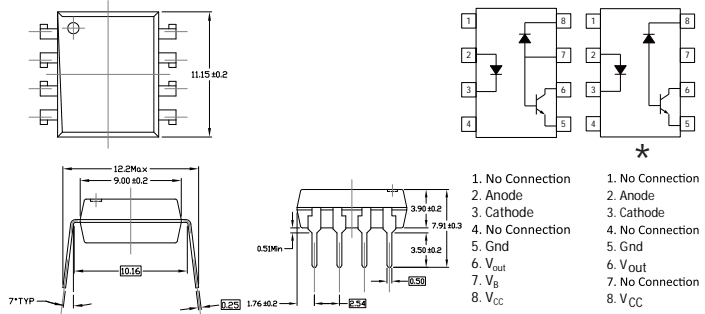
Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	CTR (%)	Viso (V <sub>rms</sub> )	CMR (V/us)	I <sub>O</sub> (mA)
6N138	9.76x6.6x3.5	15000 / 50000	7 max.	300 min.	5000	1000	60 max.
6N139	9.76x6.6x3.5	30000 / 90000	18 max.	500 min.	5000	1000	60 max.

Photo Coupler

Photo Coupler | High Speed | 8Pin Wide Body DIP-DC



UNIT : mm

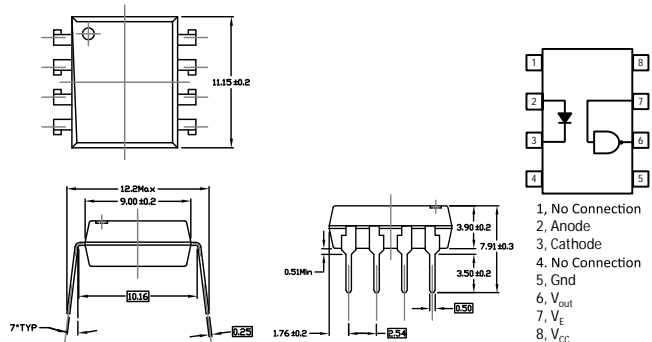


Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	CTR (%)	Viso (V <sub>rms</sub> )	CMR (V/us)	I <sub>O</sub> (mA)
ELW135	11.15x9x3.9	2000 / 2000	30 max.	7~50	5000	1000	8 max.
ELW136	11.15x9x3.9	1000 / 1000	30 max.	19~50	5000	1000	8 max.
*ELW4503	11.15x9x3.9	1000 / 1000	30 max.	19~50	5000	15000	8 max.

Star mark \* : Please refer to the schematic of Pin configuration with " \* " mark



UNIT : mm



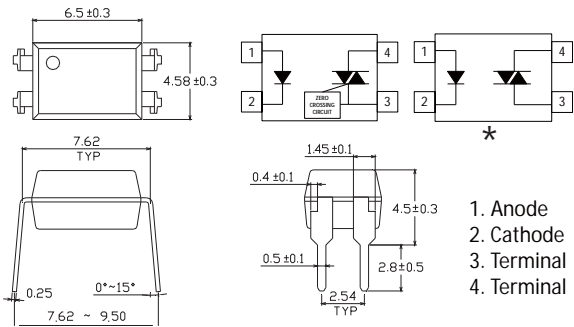
Product	Size (LxWxHmm)	tPHL / tPLH (ns)	Supply Voltage (V)	I <sub>FT</sub> (mA)	Viso (V <sub>rms</sub> )	CMR (V/us)	I <sub>O</sub> (mA)
ELW137	11.15x9x3.9	100 / 100	7 max.	5	5000	-	50 max.
ELW2601	11.15x9x3.9	100 / 100	7 max.	5	5000	5000	50 max.
ELW2611	11.15x9x3.9	100 / 100	7 max.	5	5000	10000	50 max.



Photo Coupler | Triac | 4Pin DIP-DC



UNIT : mm



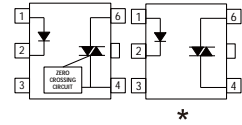
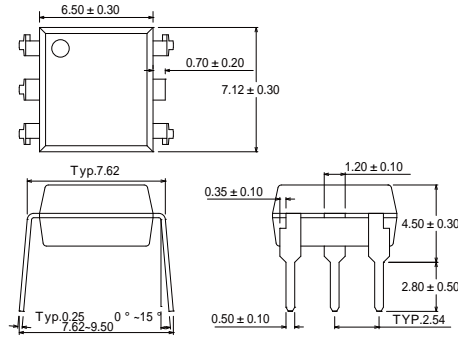
Product	Size (LxWxHmm)	$V_{TM}$ (V)	$V_{INH}$ (V)	$V_{DRM}$ (V)	$V_{F\_Max}$ (V)	Viso ( $V_{rms}$ )	$I_{FT}$ (mA)
ELT3041	6.5x4.58x3.5	3	20	400	1.5	5000	15
ELT3042	6.5x4.58x3.5	3	20	400	1.5	5000	10
ELT3043	6.5x4.58x3.5	3	20	400	1.5	5000	5
ELT3061	6.5x4.58x3.5	3	20	600	1.5	5000	15
ELT3062	6.5x4.58x3.5	3	20	600	1.5	5000	10
ELT3063	6.5x4.58x3.5	3	20	600	1.5	5000	5
ELT3081	6.5x4.58x3.5	3	20	800	1.5	5000	15
ELT3082	6.5x4.58x3.5	3	20	800	1.5	5000	10
ELT3083	6.5x4.58x3.5	3	20	800	1.5	5000	5
*ELT3021	6.5x4.58x3.5	2.5	-	400	1.2	5000	15
*ELT3022	6.5x4.58x3.5	2.5	-	400	1.2	5000	10
*ELT3023	6.5x4.58x3.5	2.5	-	400	1.2	5000	5
*ELT3051	6.5x4.58x3.5	2.5	-	600	1.2	5000	15
*ELT3052	6.5x4.58x3.5	2.5	-	600	1.2	5000	10
*ELT3053	6.5x4.58x3.5	2.5	-	600	1.2	5000	5

Star mark \* : Please refer to the schematic of Pin configuration with " \* " mark

Photo Coupler | Triac | 5Pin DIP-DC



UNIT : mm



- 1. Anode
- 2. Cathode
- 3. No Connection
- 4. Terminal
- 5. Pin Cut
- 6. Terminal

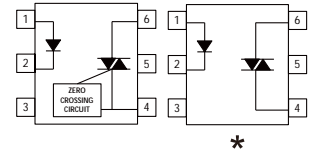
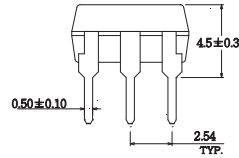
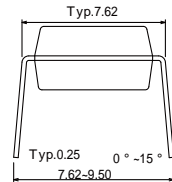
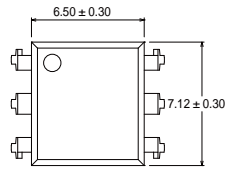
Product	Size (LxWxHmm)	V <sub>TM</sub> (V)	V <sub>INH</sub> (V)	V <sub>DRM</sub> (V)	V <sub>F-Typ</sub> (V)	Viso (V <sub>rms</sub> )	I <sub>FT</sub> (mA)
EL3031(P5)	7.12x6.5x3.5	3	20	250	--	5000	15
EL3032(P5)	7.12x6.5x3.5	3	20	250	--	5000	10
EL3033(P5)	7.12x6.5x3.5	3	20	250	--	5000	5
EL3041(P5)	7.12x6.5x3.5	3	20	400	--	5000	15
EL3042(P5)	7.12x6.5x3.5	3	20	400	--	5000	10
EL3043(P5)	7.12x6.5x3.5	3	20	400	--	5000	5
EL3061(P5)	7.12x6.5x3.5	3	20	600	--	5000	15
EL3062(P5)	7.12x6.5x3.5	3	20	600	--	5000	10
EL3063(P5)	7.12x6.5x3.5	3	20	600	--	5000	5
EL3081(P5)	7.12x6.5x3.5	3	20	800	--	5000	15
EL3082(P5)	7.12x6.5x3.5	3	20	800	--	5000	10
EL3083(P5)	7.12x6.5x3.5	3	20	800	--	5000	5
*EL3010(P5)	7.12x6.5x3.5	2.5	--	250	1.18	5000	15
*EL3011(P5)	7.12x6.5x3.5	2.5	--	250	1.18	5000	10
*EL3012(P5)	7.12x6.5x3.5	2.5	--	250	1.18	5000	5
*EL3021(P5)	7.12x6.5x3.5	2.5	--	400	1.18	5000	15
*EL3022(P5)	7.12x6.5x3.5	2.5	--	400	1.18	5000	10
*EL3023(P5)	7.12x6.5x3.5	2.5	--	400	1.18	5000	5
*EL3051(P5)	7.12x6.5x3.5	2.5	--	600	1.18	5000	15
*EL3052(P5)	7.12x6.5x3.5	2.5	--	600	1.18	5000	10
*EL3053(P5)	7.12x6.5x3.5	2.5	--	600	1.18	5000	5

Photo Coupler

Photo Coupler | Triac | 6Pin DIP-DC



UNIT : mm



- 1. Anode
- 2. Cathode
- 3. No Connection
- 4. Terminal
- 5. Substrate (do not connect)
- 6. Terminal

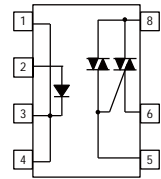
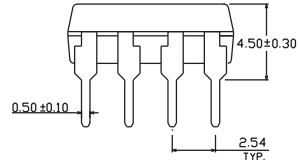
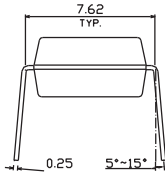
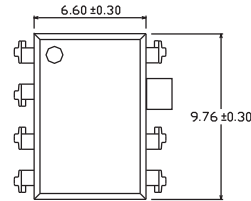
Product	Size (LxWxHmm)	V <sub>TM</sub> (V)	V <sub>INH</sub> (V)	V <sub>DRM</sub> (V)	V <sub>F-Typ</sub> (V)	V <sub>iso</sub> (V <sub>rms</sub> )	I <sub>FT</sub> (mA)
EL3031	7.12x6.5x3.5	3	20	250	--	5000	15
EL3032	7.12x6.5x3.5	3	20	250	--	5000	10
EL3033	7.12x6.5x3.5	3	20	250	--	5000	5
EL3041	7.12x6.5x3.5	3	20	400	--	5000	15
EL3042	7.12x6.5x3.5	3	20	400	--	5000	10
EL3043	7.12x6.5x3.5	3	20	400	--	5000	5
EL3061	7.12x6.5x3.5	3	20	600	--	5000	15
EL3062	7.12x6.5x3.5	3	20	600	--	5000	10
EL3063	7.12x6.5x3.5	3	20	600	--	5000	5
EL3081	7.12x6.5x3.5	3	20	800	--	5000	15
EL3082	7.12x6.5x3.5	3	20	800	--	5000	10
EL3083	7.12x6.5x3.5	3	20	800	--	5000	5
*EL3010	7.12x6.5x3.5	2.5	--	250	1.18	5000	15
*EL3011	7.12x6.5x3.5	2.5	--	250	1.18	5000	10
*EL3012	7.12x6.5x3.5	2.5	--	250	1.18	5000	5
*EL3021	7.12x6.5x3.5	2.5	--	400	1.18	5000	15
*EL3022	7.12x6.5x3.5	2.5	--	400	1.18	5000	10
*EL3023	7.12x6.5x3.5	2.5	--	400	1.18	5000	5
*EL3051	7.12x6.5x3.5	2.5	--	600	1.18	5000	15
*EL3052	7.12x6.5x3.5	2.5	--	600	1.18	5000	10
*EL3053	7.12x6.5x3.5	2.5	--	600	1.18	5000	5

Star mark \* : Please refer to the schematic of Pin configuration with " \* " mark

Photo Coupler | Photo Power Triac | 7pin DIP-DC



UNIT : mm



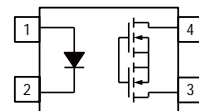
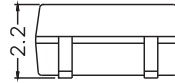
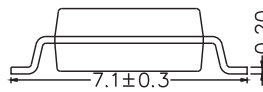
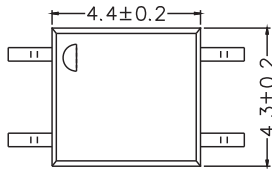
- 2. Anode
- 1, 3, 4. Cathode
- 5. Triac Gate
- 6. Triac T1
- 8. Triac T2

Product	Size (LxWxHmm)	IT(rms) (A)	VDRM (V)	ITSM(A)	VTM (V)	Viso (Vrms)	IFT (mA)
ELR0223	9.76x6.5x3.5	0.3	600V	3	2.5	5000	10
ELR1223	9.76x6.5x3.5	0.6	600V	6	2.5	5000	10
ELR2223	9.76x6.5x3.5	0.9	600V	9	2.5	5000	10
ELR3223	9.76x6.5x3.5	1.2	600V	12	2.5	5000	10

Photo Coupler | Solid State Relay | 4pin SOP-DC



UNIT : mm



- 1. Anode
- 2. Cathode
- 3,4. Drain

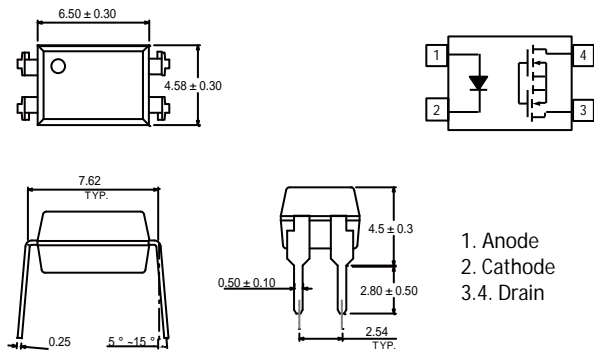
Product	Size (LxWxHmm)	Output type	Load Voltage (V)	Load Current (mA)	Ron Typ.(Ω)	Ifon max. (mA)	Viso (Vrms)
ELM440A	4.4x4.3x2.2	Normally Open 1 Form A	400	120	20	5	3750
ELM460A	4.4x4.3x2.2	Normally Open 1 Form A	600	50	40	5	3750



Photo Coupler | Solid State Relay | 4Pin DIP-DC



UNIT : mm



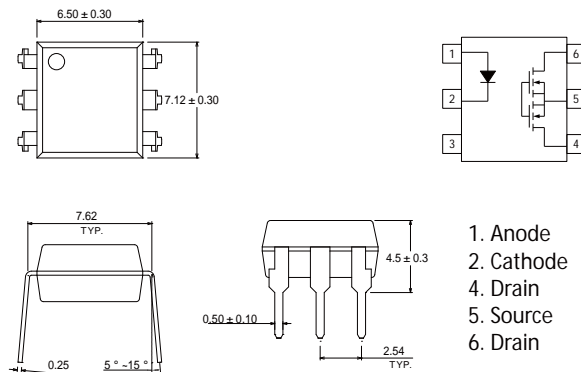
- 1. Anode
- 2. Cathode
- 3.4. Drain

Product	Size (LxWxHmm)	Output type	Load Voltage (V)	Load Current (mA)	Ron Typ.(Ω)	Ifon max. (mA)	Viso (Vrms)
EL406A	6.5x4.58x3.5	Normally Open 1 Form A	60	550	0.75	5	5000
EL425A	6.5x4.58x3.5	Normally Open 1 Form A	250	180	6.5	5	5000
EL440A	6.5x4.58x3.5	Normally Open 1 Form A	400	120	20	5	5000
EL460A	6.5x4.58x3.5	Normally Open 1 Form A	600	50	40	5	5000

Photo Coupler | Solid State Relay | 6Pin DIP-DC



UNIT : mm



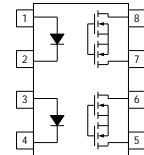
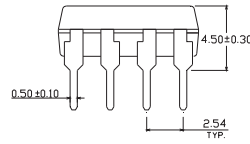
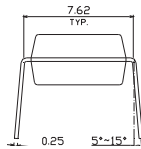
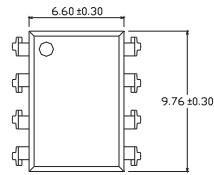
- 1. Anode
- 2. Cathode
- 4. Drain
- 5. Source
- 6. Drain

Product	Size (LxWxHmm)	Output type	Load Voltage (V)	Load Current (mA)	Ron Typ.(Ω)	Ifon max. (mA)	Viso (Vrms)
EL606A	7.12x6.5x3.5	Normally Open 1 Form A	60	550	0.75	3	5000
EL625A	7.12x6.5x3.5	Normally Open 1 Form A	250	180	6.5	3	5000
EL640A	7.12x6.5x3.5	Normally Open 1 Form A	400	120	20	3	5000
EL660A	7.12x6.5x3.5	Normally Open 1 Form A	600	50	40	3	5000

Photo Coupler | Solid State Relay | 8Pin DIP-DC



UNIT : mm



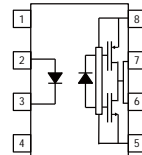
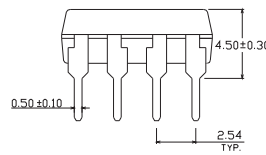
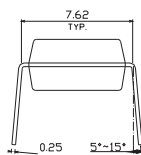
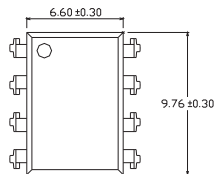
1, 3. Anode  
2, 4. Cathode  
5, 6, 7, 8. Drain

Product	Size (LxWxHmm)	Output type	Load Voltage (V)	Load Current (mA)	Ron Typ.(Ω)	Ifon max. (mA)	Viso (Vrms)
EL840A	9.76x6.5x3.5	Normally Open 2 Form A	400	120	20	5	5000
EL860A	9.76x6.5x3.5	Normally Open 2 Form A	600	50	40	5	5000

Photo Coupler | Gate Driver | 8pin DIP-DC



UNIT : mm



1, No Connection  
2, Anode  
3, Cathode  
4, No Connection  
5, Gnd  
6, V<sub>out</sub>  
7, V<sub>out</sub>  
8, V<sub>CC</sub>

Product	Size (LxWxHmm)	tPHL/ tPLH (ns)	High Level Output Current (A)	Low Level Output Current (A)	Viso (Vrms)	CMR (KV/us)	IFT (mA)
EL3120	9.76x6.5x3.5	300 max. /300 max.	2 min.	-2 min.	5000	20	5

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