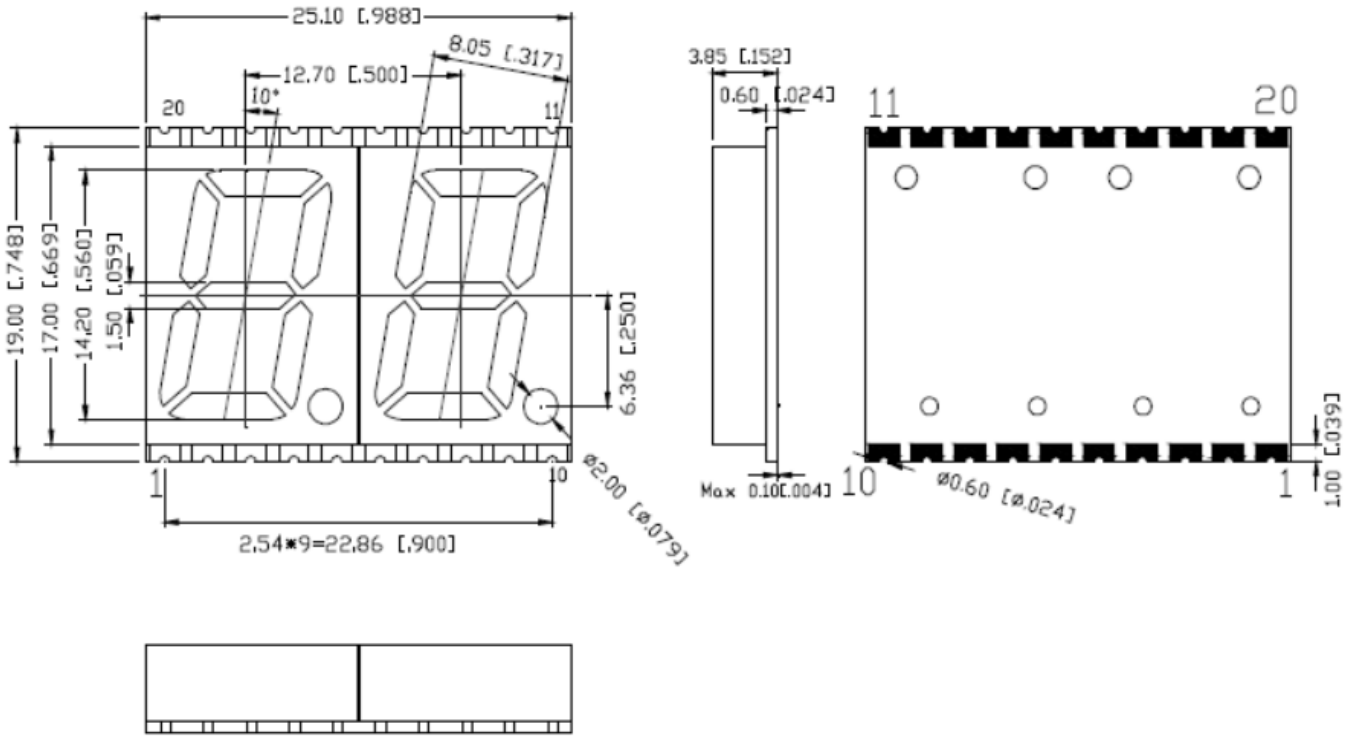


**SPECIFICATIONS** **SDDA56W2W**

### OUTLINES DIMENSIONS



The technical drawing shows the following dimensions:

- Top View:** Total width 25.10 [0.988], total length 22.86 [0.900] (calculated as 2.54 \* 9). Individual lens width is 8.05 [0.317], lens height is 12.70 [0.500]. Lens pitch is 12.70 [0.500]. Lens height angle is 10°. Lens depth is 1.50 [0.059]. Lens height from base is 14.20 [0.560]. Lens height from top surface is 17.00 [0.669]. Lens height from bottom surface is 19.00 [0.748]. Lens height from top surface to lens base is 6.36 [0.250]. Lens height from bottom surface to lens base is 1.00 [0.039]. Lens diameter is 0.60 [0.024]. Lens diameter tolerance is Max 0.10 [0.004].
- Side View:** Total height 3.95 [0.152]. Lens height from top surface is 0.60 [0.024]. Lens height from bottom surface is 1.00 [0.039]. Lens height from top surface to lens base is 1.00 [0.039]. Lens height from bottom surface to lens base is 1.00 [0.039]. Lens height from top surface to lens base is 1.00 [0.039]. Lens height from bottom surface to lens base is 1.00 [0.039].
- Bottom View:** Shows the common anode configuration with two segments.

**Notes:**

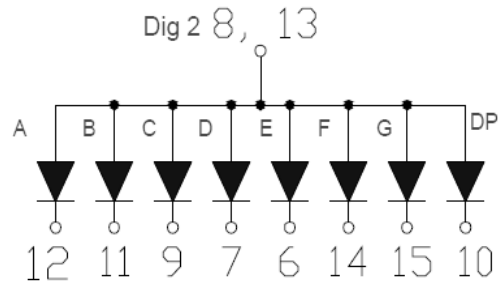
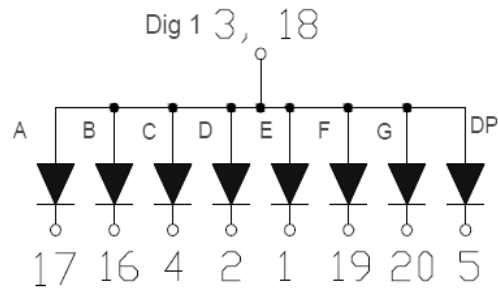
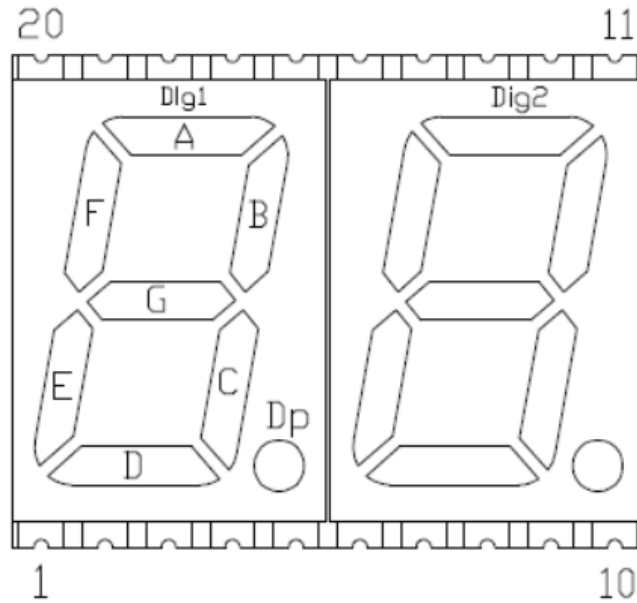
1. All Dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Description
SDDA56W2W	InGaN	White	White Segment	Common Anode



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## TYPICAL INTERNAL EQUIVALENT CIRCUIT



Common Anode



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	114	mW
Pulse Forward Current	IFP	100	mA
Continuous Forward Current	IF	30	mA
Reverse Voltage Segment	VR	5	V
Operating Temperature Range	TOPR	-40~+105	°C
Storage Temperature Range	TSTG	-40~+105	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 5sec			

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 10mA	-	60	-	mcd
Forward Voltage	VF	IF = 20mA	-	3.2	3.8	V
Reverse Leakage Current	IR	VR = 5V	-	-	10	µA
Chromaticity Coordinates	X	IF = 20mA	-	0.27	-	-
	Y	IF = 20mA	-	0.25	-	-



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## OPTICAL CHARACTERISTIC CURVES

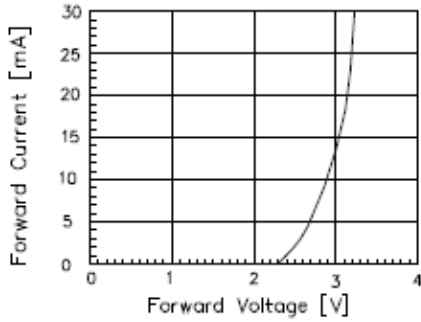


Fig 1. Forward Current vs. Forward Voltage

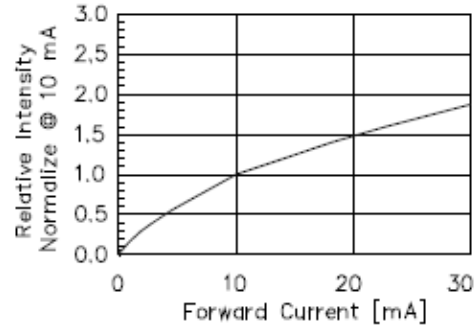


Fig 2. Relative Intensity vs. Forward Current

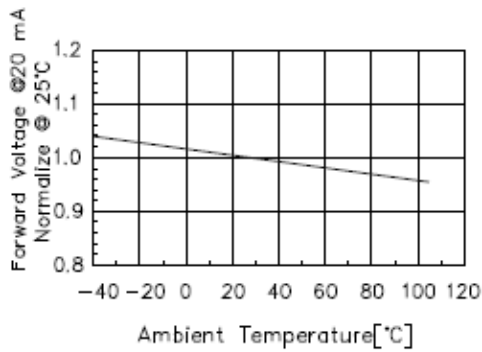


Fig 3. Forward Voltage vs. Temperature

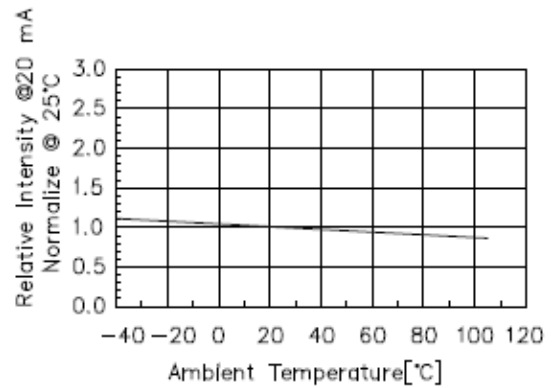


Fig 4. Relative Intensity vs. Temperature

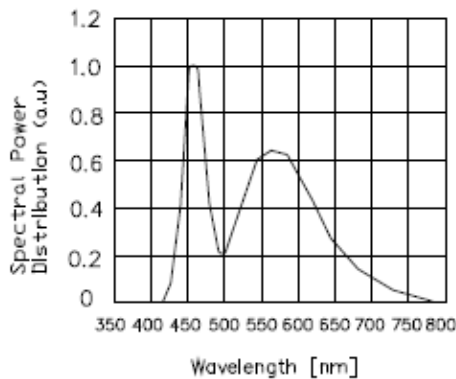


Fig 5. Spectral Power Distribution vs. Wavelength

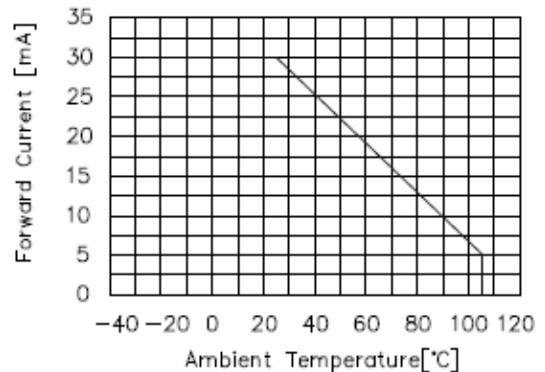


Fig 6. Forward current vs. Temperature

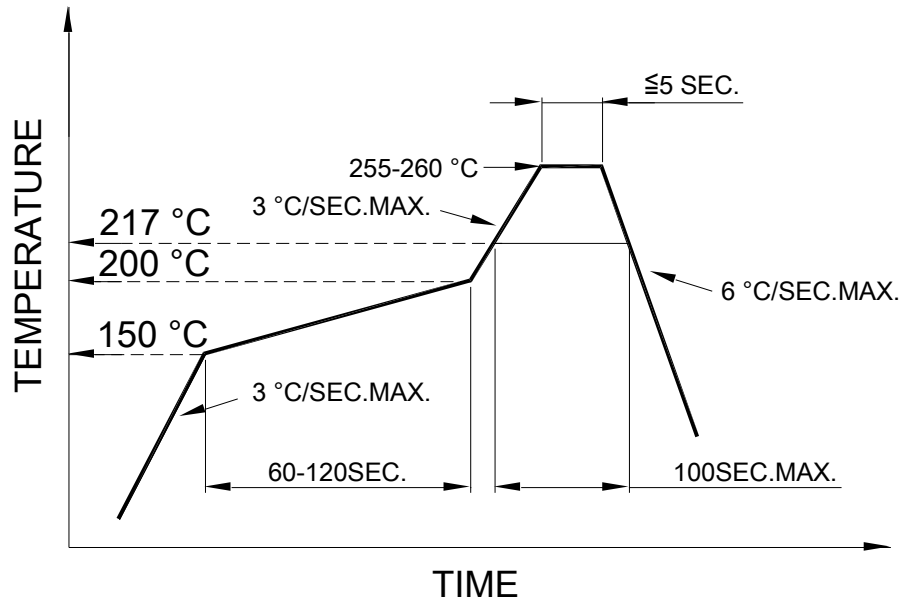


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**SOLDERING CONDITIONS – DISPLAY TYPE LED**
**● SMT REFLOW SOLDERING INSTRUCTIONS**

SMT Soldering Profile

Pb free reflow soldering Profile



- We recommend the reflow temperature 245°C (+/- 5°C).  
The maximum soldering temperature should be limited to 260°C.
- Number of reflow process shall be 2 times or less.

**● SOLDERING IRON**

Basic spec is ≤4 sec when 260°C. If temperature is higher, time should be shorter (+10°C→1 sec). Power dissipation of Iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C.

**● REWORK**

- Customer must finish rework within 3 sec. under 350°C.
- The head of soldering iron cannot touch copper foil.



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