QT-Brightek Chip LED Series

1208 IR LED with Dome Lens

Part No.: QBLP653-IR1

Table of Contents:

Introduction

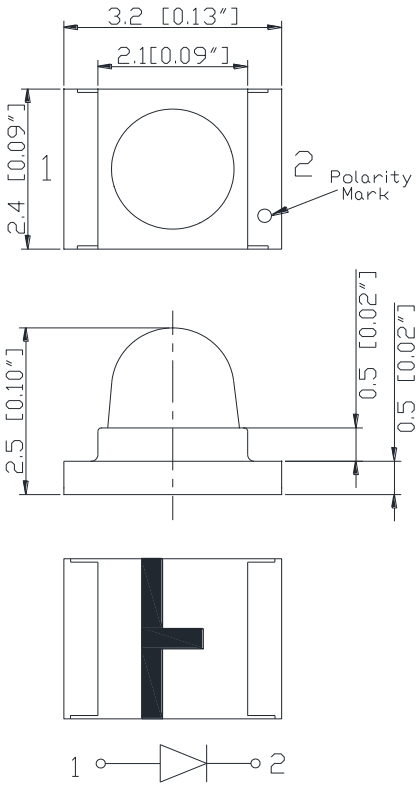
Feature:
- Water clear lens
- Tape and reel packaging
- Bright LED package
- AlGaAs technology for IR
- Viewing Angle = 15 deg

Description:
This reversed mount light weight bright 1208 LEDs have a height profile of 2.5mm. With narrow viewing angle, LED produces high intensity output. This device is spectrally matched with phototransistor, photodiode and infrared receiver module.

Application:
- Free air transmission system
- Optoelectronic switch
- Infrared applied system
- Smoke Detector

Certification & Compliance:
- TS16949
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.15mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I_F (mA)	V_F (V)			λ_P (nm)			Ie (mW/sr)		
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
QBLP653-IR1	Infrared	20	0.8	1.3	1.8	930	940	950	1.6	3.2	4.6

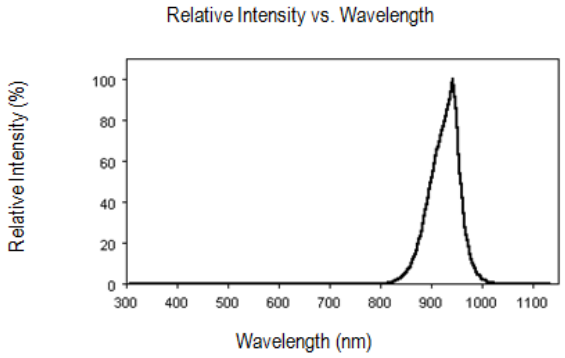
Absolute Maximum Rating

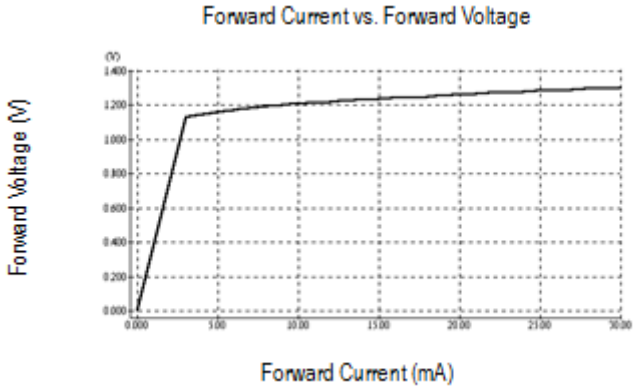
Material	P_d (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (°C)	T_{ST} (°C)	T_{SOL} (°C)**
AlGaAs	80	50	1	5	-40 to +80	-40 to +85	260

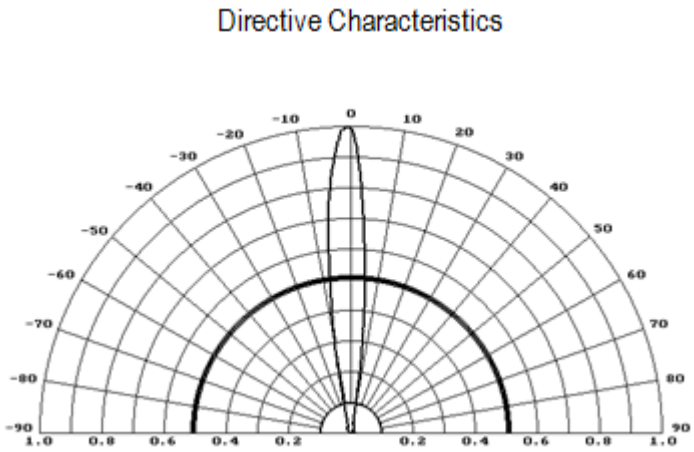
*Pulse width 100μs, duty cycle=1%

**IR Reflow for no more than 10 sec @ 260 °C

Characteristic Curves

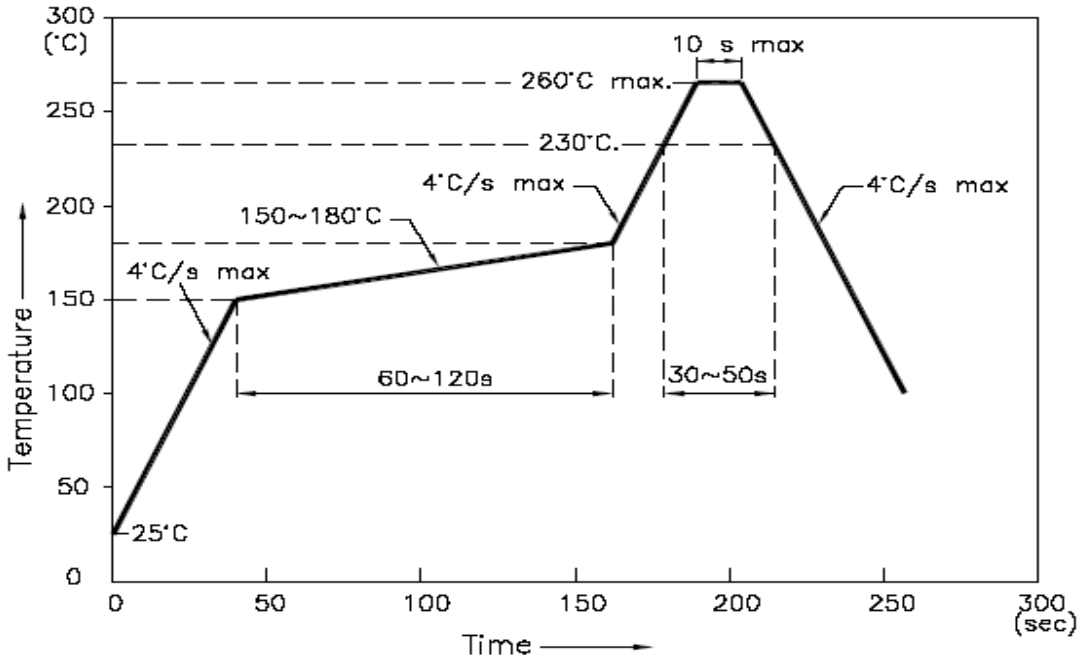




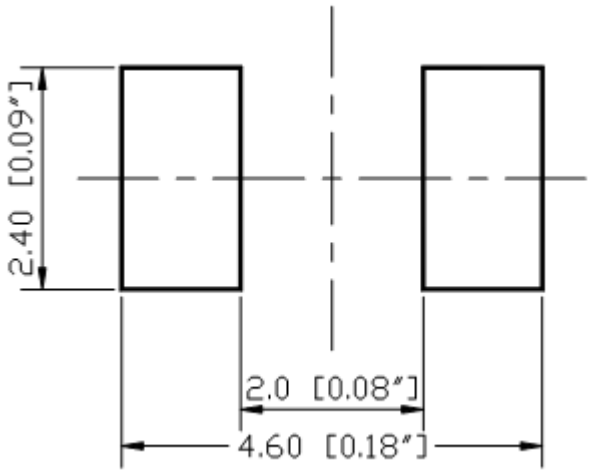


Soldering Profile & footprint

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



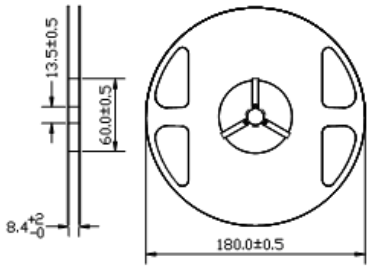
Recommended Pad Layout



Units: mm Tolerance: ± 0.15mm

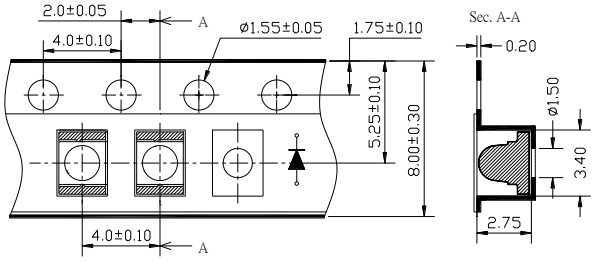
Packing

Reel Dimensions:



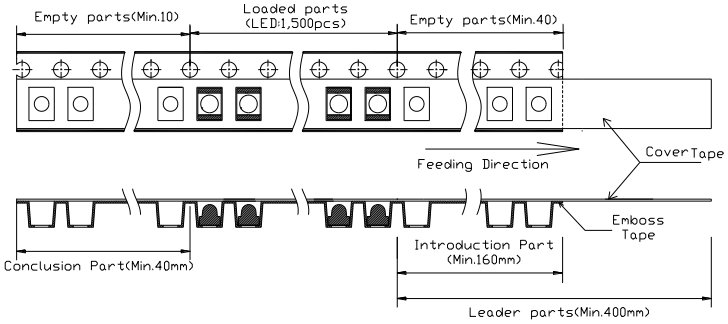
Unit: mm

Tape Dimensions:

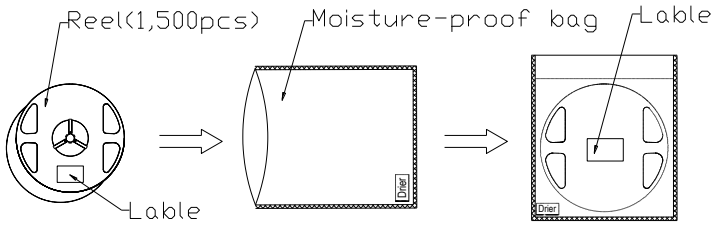


Unit: mm

Arrangement of Tape:



Packing specifications



Labeling

Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP653-IR1	QBLP653-IR1	Ie=3.2mW/sr typ. @ 20mA, λ_P=940nm typ.	1,500 pcs

Revision History

Description:	Revision #	Revision Date
New Release of QBLP653-IR1	V1.0	05/11/2015
Update dimension drawing	V1.1	08/08/2017

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.