QT-Brightek Chip LED Series

1206 Chip LED with Inner Lens

Part No.: QBLP651-S3

S3: λ_P=660nm (λ_D=640nm)

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Introduction

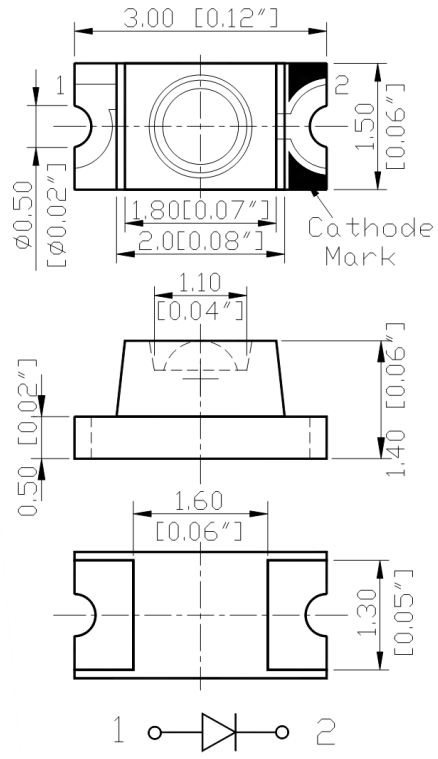
Feature:
- Water clear lens
- Tape and reel packaging
- Bright LED package
- AlInGaP technology
- Viewing Angle: 40° typ.

Description:
These 1206 LEDs have a height profile of 1.40mm. With a combination of high brightness output and a small footprint, these LEDs are ideal for status indication.

Application:
- Status indication
- Back lighting application

Certification & Compliance:
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (Ta=25 °C)

Product Number	Color	I_F (mA)	V_F (V)			λ_P(nm)			λ_D (nm)	Iv (mcd)	
			Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP651-S3	Deep Red	20	1.7	2.0	2.5	650	660	670	640	55	90

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)**
AlInGaP	75	30	125	5	-40 to +80	-40 to +85	260

*Duty 1/8 @ 1KHz

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

Forward Voltage V_F @ I_F=20mA

Bin	Min.	Max.	Unit
☐	1.7	2.5	V

Luminous Intensity I_V @ I_F=20mA

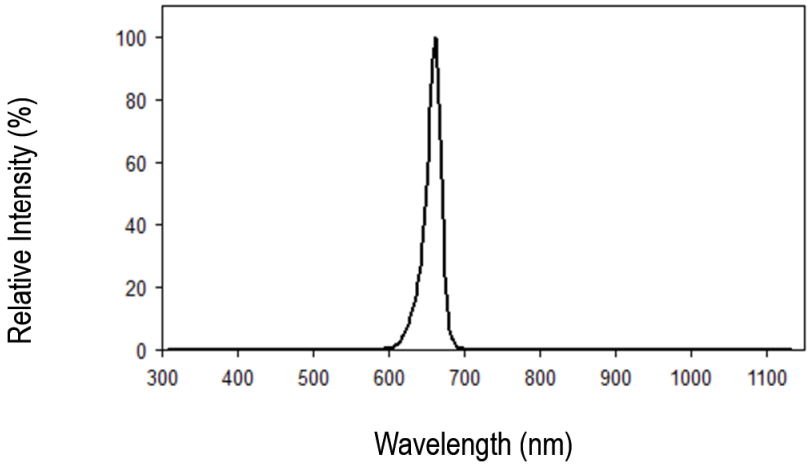
Bin	Min.	Max.	Unit
G1	55	70	mcd
H1	70	89	
I2	89	112	
J1	112	140	
K1	140	175	

Dominant Wavelength λ_P @ I_F=20mA

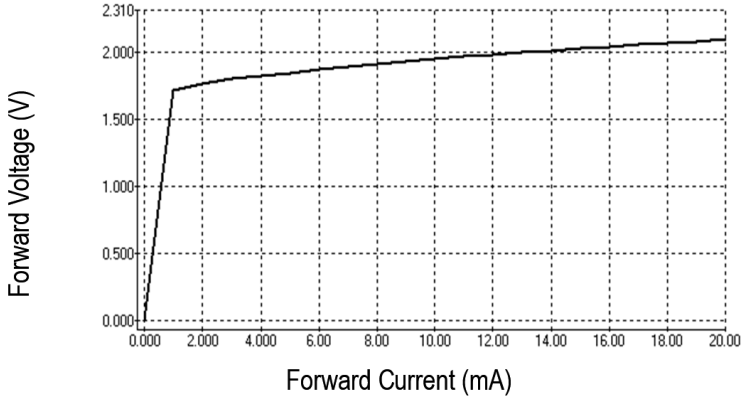
Bin	Min.	Max.	Unit
X	650	660	nm
Y	660	670	

Characteristic Curves

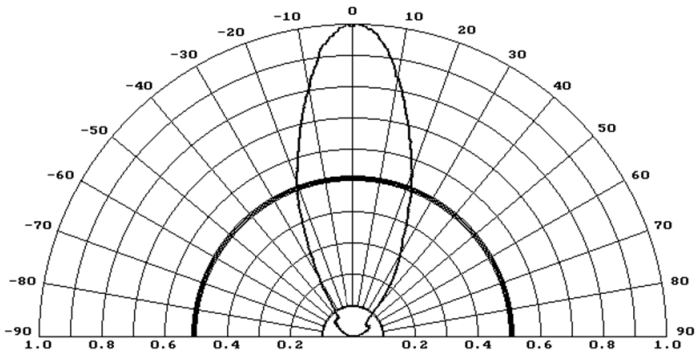
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage

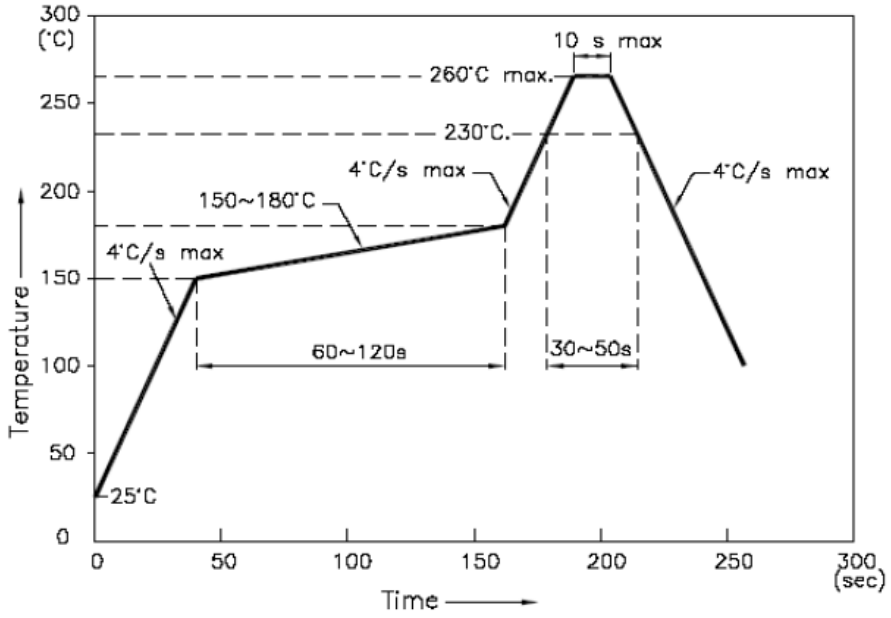


Directive Characteristics

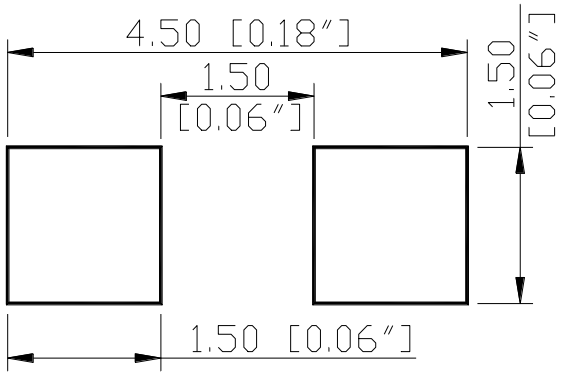


Solder Profile

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



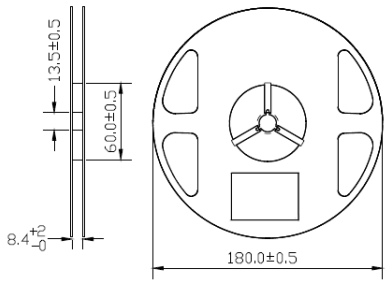
Recommended Pad Layout



Units: mm

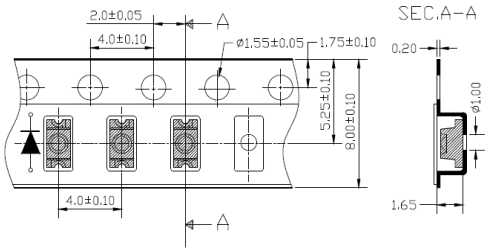
Packing

Reel Dimensions:



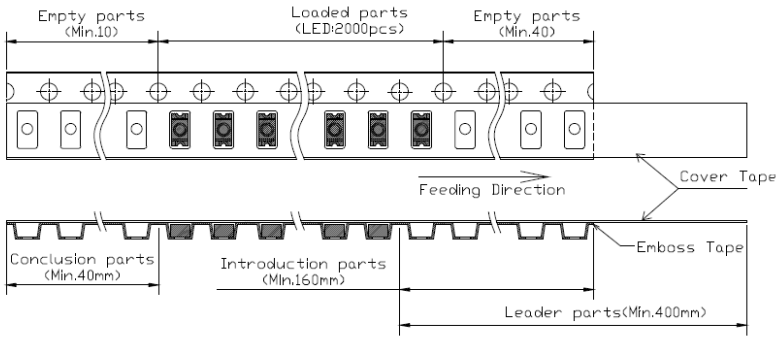
Unit: mm

Tape Dimensions:

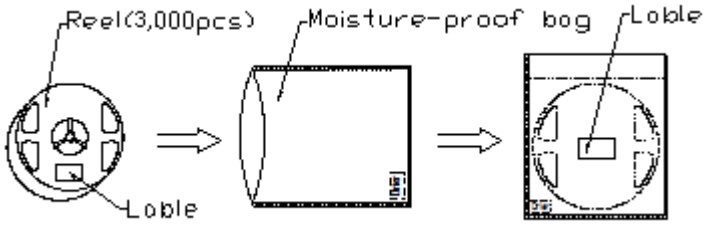


Unit: mm

Arrangement of Tape:



Packing specifications:



Labeling

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP651-S3	I_V=90mcd typ. @ I_F=20mA, λ_P=650 to 670nm	3,000 pcs

Revision History

Description:	Revision #	Revision Date
New Release of QBLP651-S3	V1.0	11/01/2023

Disclaimer

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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.