

QT-Brightek Chip LED Series
1206 Chip LED with Inner Lens
Part No.: QBLP651-S

Product: QBLP651-S	Date: May 4, 2022	Page 1 of 9
	Version# 1.0	

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Introduction

Feature:

- Water clear lens
- Tape and reel packaging
- Bright LED package
- AllnGaP 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:

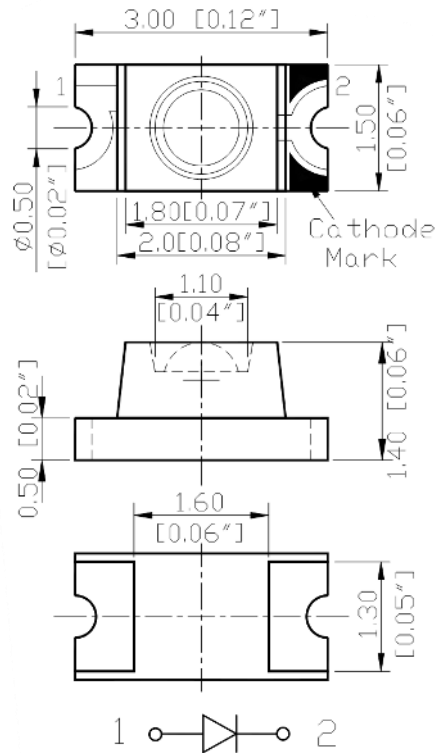
- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- 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 _D (nm)			λ _P (nm)	I _V (mcd)	
			Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP651-S	Deep Red	20	1.7	2.0	2.5	630	640	650	660	50	87

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)**
AllnGaP	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

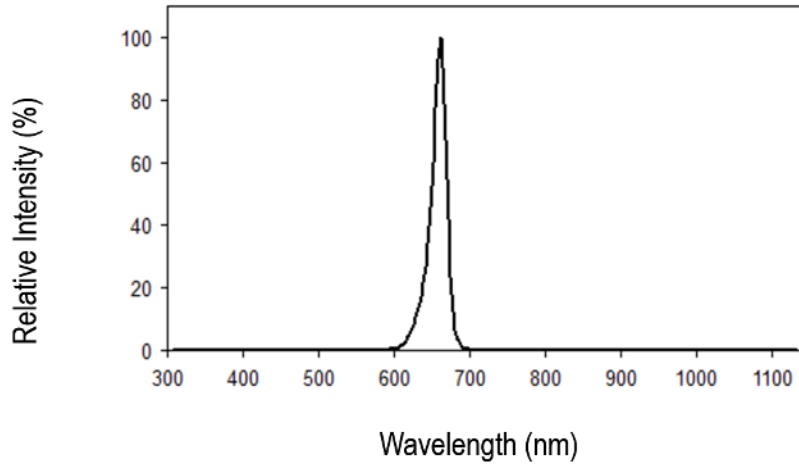
Bin	Min.	Max.	Unit
G	50	63	mcd
H	63	80	
I	80	100	
J	100	125	
K	125	160	

Dominant Wavelength λ_D @ I_F=20mA

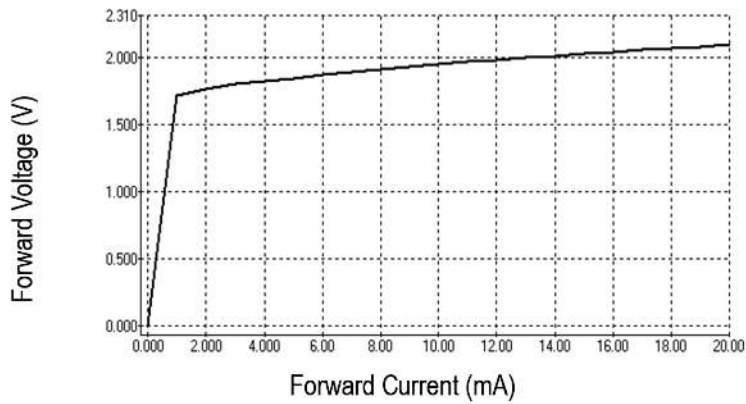
Bin	Min.	Max.	Unit
v	630	635	nm
w	635	650	

Characteristic Curves

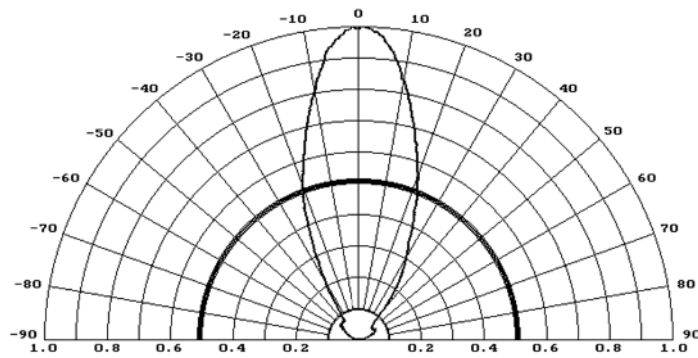
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage

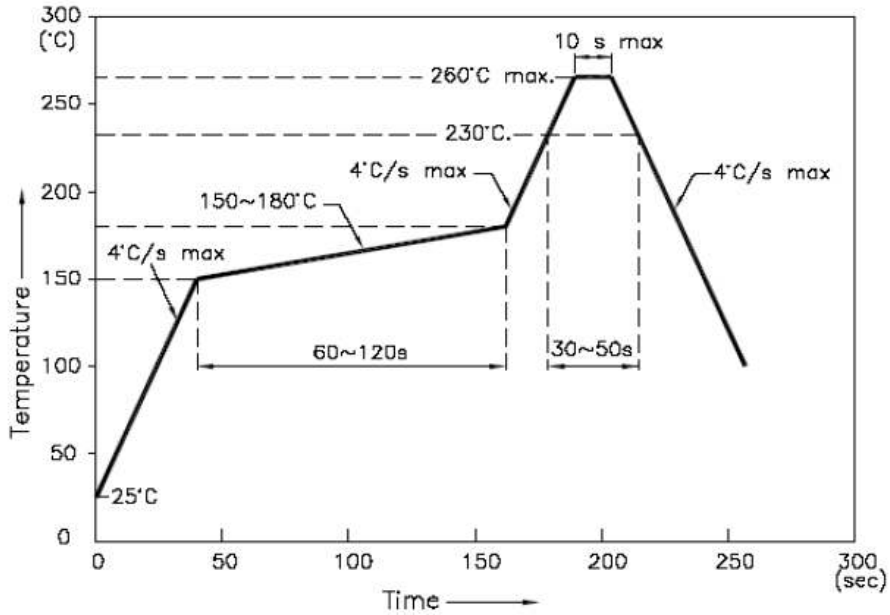


Directive Characteristics

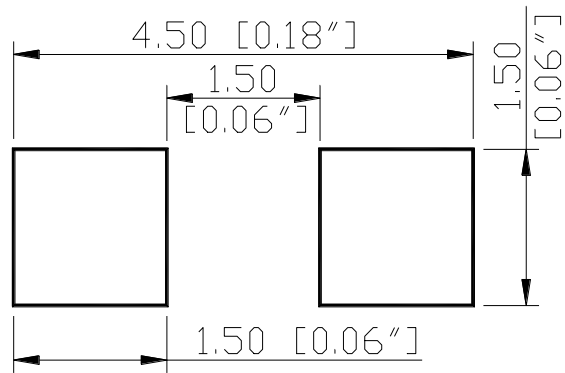


Solder Profile

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



Recommended Pad Layout

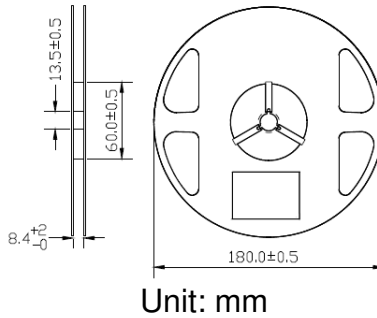


Units: mm

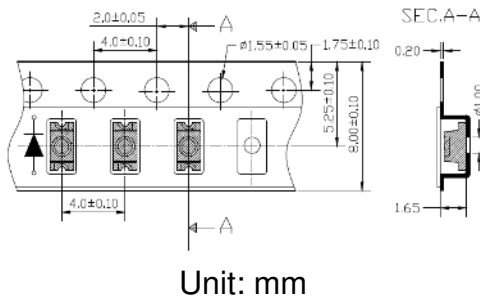
Tolerance: ± 0.1 mm

Packing

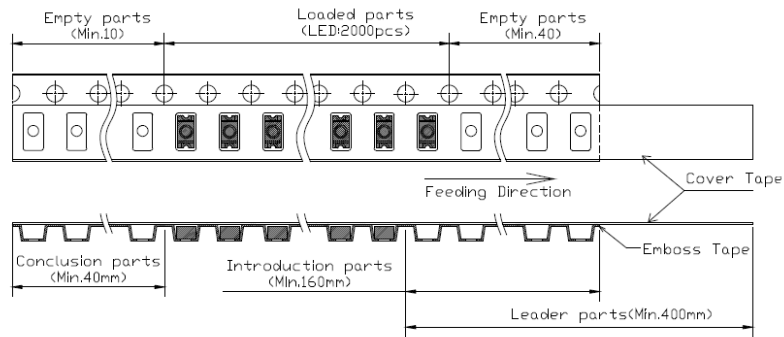
Reel Dimensions:



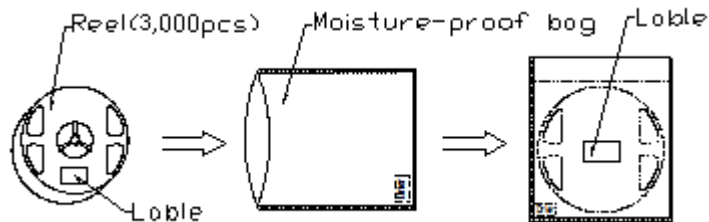
Tape Dimensions:



Arrangement of Tape:



Packing specifications:



Labeling

Part No: _____

Customer P/N: _____

Item: _____

Q'ty: _____

Vf: _____

Iv: _____

WI: _____

Date: _____

Made in China**Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP651-S	QBLP651-S	I _v =87mcd typ. @ I _F =20mA, λ _D =630 to 650nm	3,000 pcs

Revision History

Description:	Revision #	Revision Date
New Release of QBLP651-S	V1.0	05/04/2022

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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.