QT-Brightek Chip LED Series

SMD 1206 LED

Part No.: QBLP650-S3

S3: λ_P=660nm, λ_D=640nm

Table of Contents:

Introduction

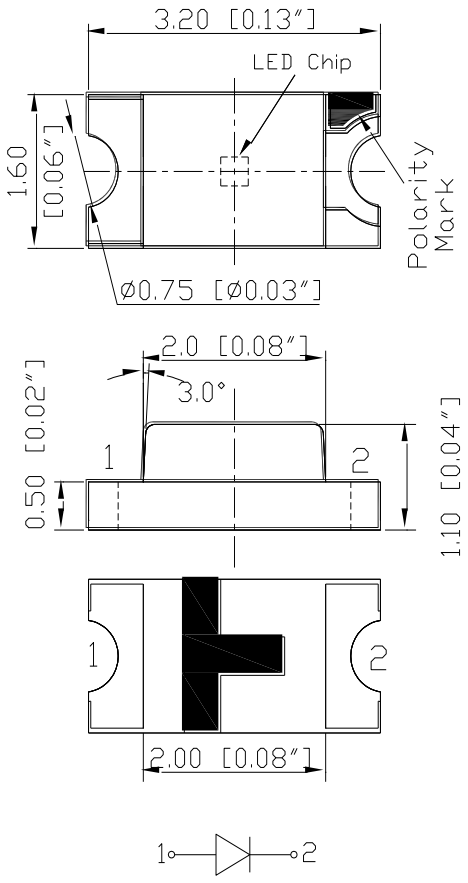
Feature:
- Water clear lens
- Package in tape and reel
- Bright 1206 LED package
- AlInGaP technology
- Viewing angle: 140deg typ.

Description:
This top mount bright 1206 LEDs have a height profile of 1.1mm, which is ideal in any kind of back lighting application. Also, it is a light weight model that is good for miniature products.

Application:
- dashboard lighting and button lighting
- Telecommunication and storage Back lighting
- Flat panel display back lighting

Certification & Compliance:
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (Ta=25 ^{o}C)

Product	Color	I_F (mA)	V_F (V)		λ_D (nm)	λ_P (nm)			I_V (mcd)	
			Typ.	Max.	Typ.	Min.	Typ.	Max.	Min.	Typ.
QBLP650-S3	Red	20	2.0	2.5	640	650	660	670	12.5	25

Absolute Maximum Rating

Material	Pd (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (^{o}C)	T_{ST} (^{o}C)	T_{SOL} (^{o}C)**
AlInGaP	75	30	125	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/8 @ 1kHz
**IR Reflow for no more than 10 sec @ 260 ^{o}C

Forward Voltage V_F @ I_F=20mA

Bin	Min.	Max.	Unit
☐	1.7	2.5	V

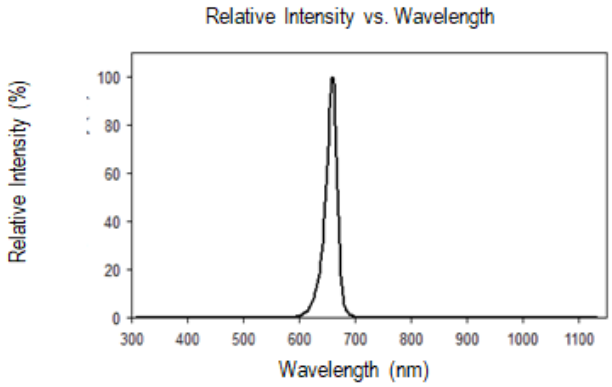
Luminous Intensity I_V @ I_F=20mA

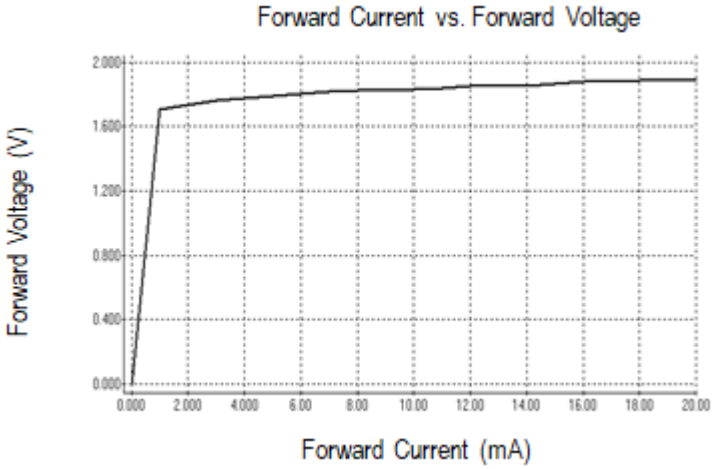
Bin	Min.	Max.	Unit
A	12.5	16	mcd
B	16	20	
C	20	25	
D	25	32	
E	32	40	

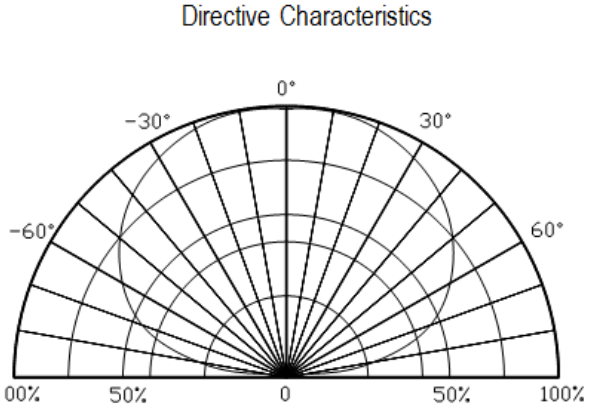
Peak Wavelength λ_P @ I_F=20mA

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

Characteristic Curves

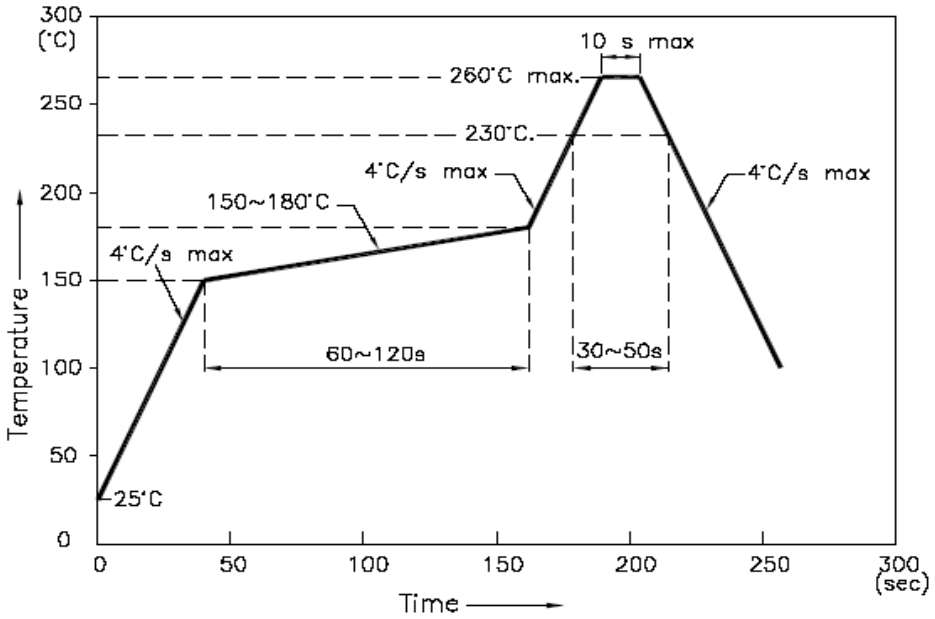




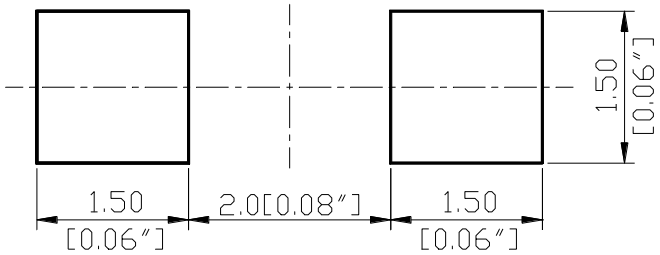


Solder Profile & Footprint

-Recommended tin solder specifications: melting temperature in the range of 178~192 ^{O}C
-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



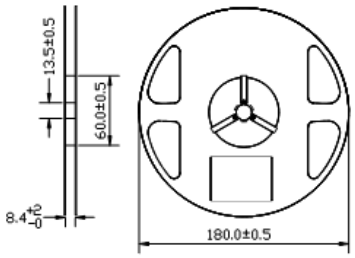
Recommended Pad Layout



Units: mm

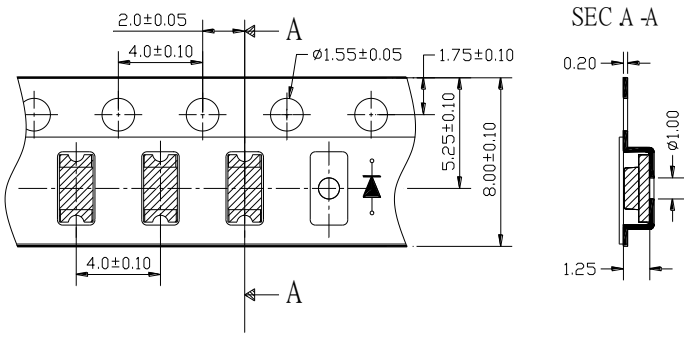
Packing

Reel Dimension:



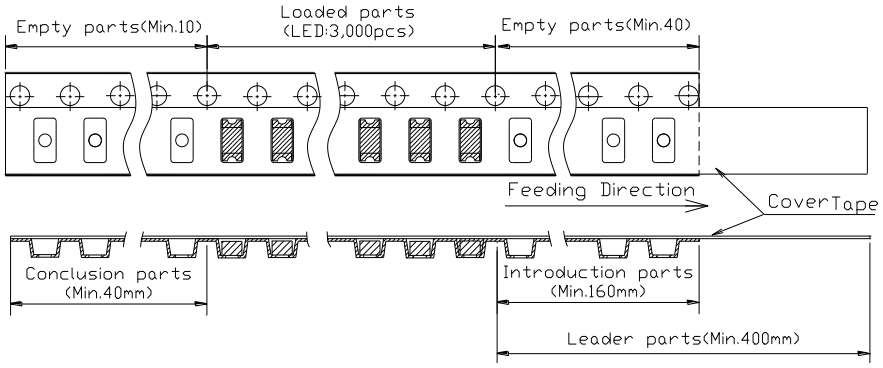
Unit: mm

Tape Dimension:

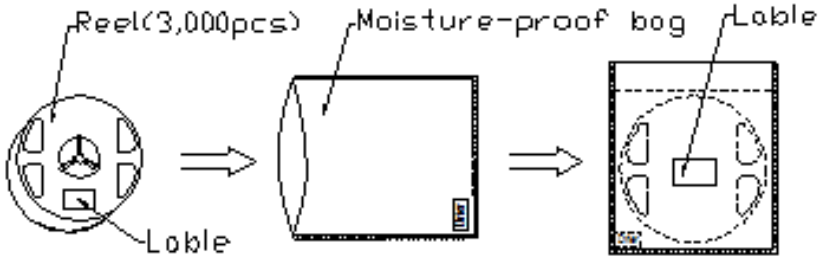


Unit: mm

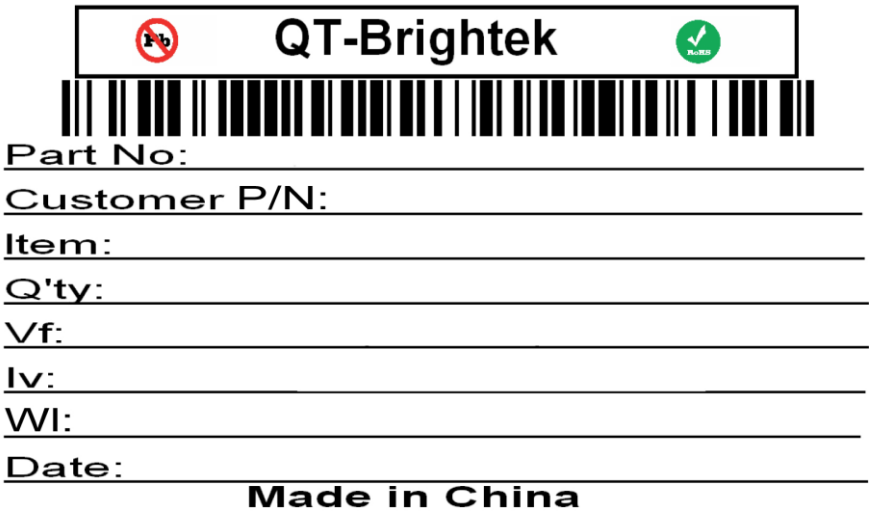
Arrangement of Tape:



Packaging Specifications:



Labeling



Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP650-S3	Iv=25mcd typ. @ I_F=20mA, λ_P=650nm to 670nm, λ_D=640nm typ.	3,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP650-S3	V1.0	06/06/2023

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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.