

QT-Brightek Chip LED Series

0402 SMD Red LED

Part No.: QBLP595-S03

**S0: 640nm
3: 3mA**

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Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Color: red
- Compact 0402 package
- AllnGaP technology
- Viewing angle: 140 deg typ.
- Height profile: 0.5mm

Application:

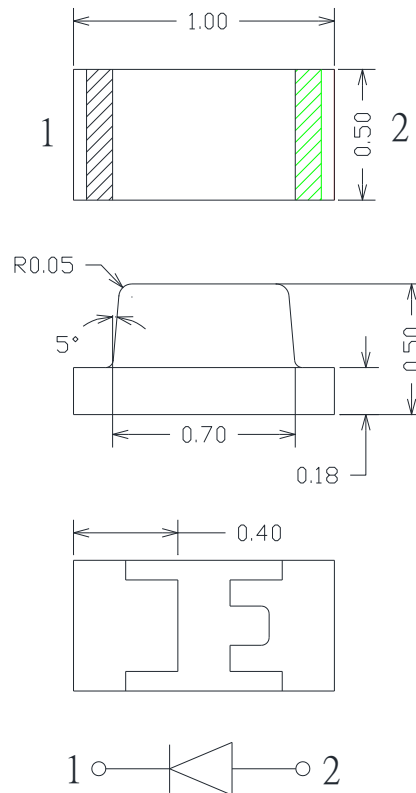
- Status indication
- Back lighting application

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)		λ _D (nm)			λ _P (nm)	I _V (mcd)		
			Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.	Max.
QBLP595-S03	Red	3	1.8	2.3	630	640	650	660	1.5	4.0	14

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	69	30	100	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/10 @ 1kHz

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

Forward Voltage V_F @ I_F=3mA

Bin	Min.	Max.	Unit
□	1.7	2.3	V

Luminous Intensity I_V @ I_F=3mA

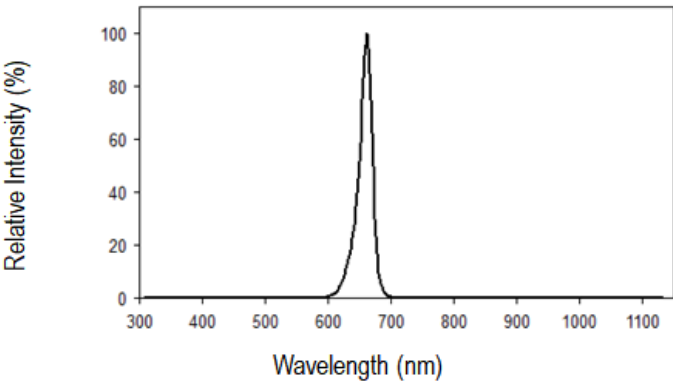
Bin	Min.	Max.	Unit
1Q	1.5	3	mcd
2Q	3	4.7	
3Q	4.7	7.5	
4Q	7.5	10	
5Q	10	14	

Dominant Wavelength λ_D @ I_F=3mA

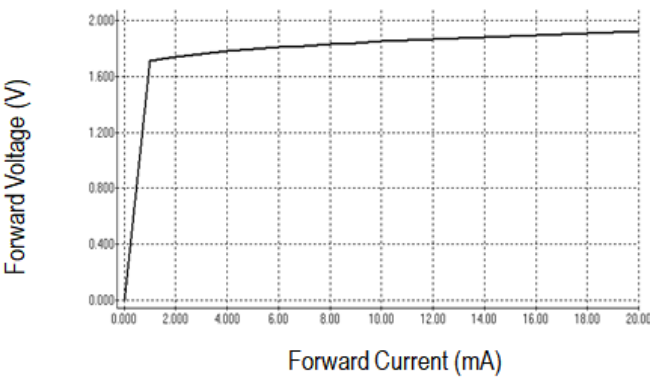
Bin	Min.	Max.	Unit
v	630	635	nm
w	635	650	

Characteristic Curves

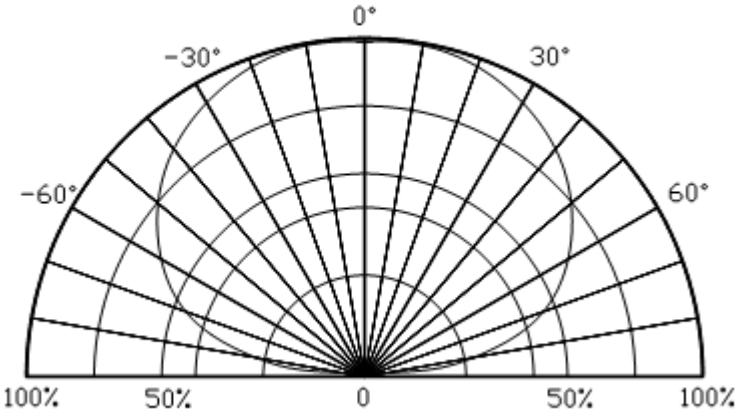
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage

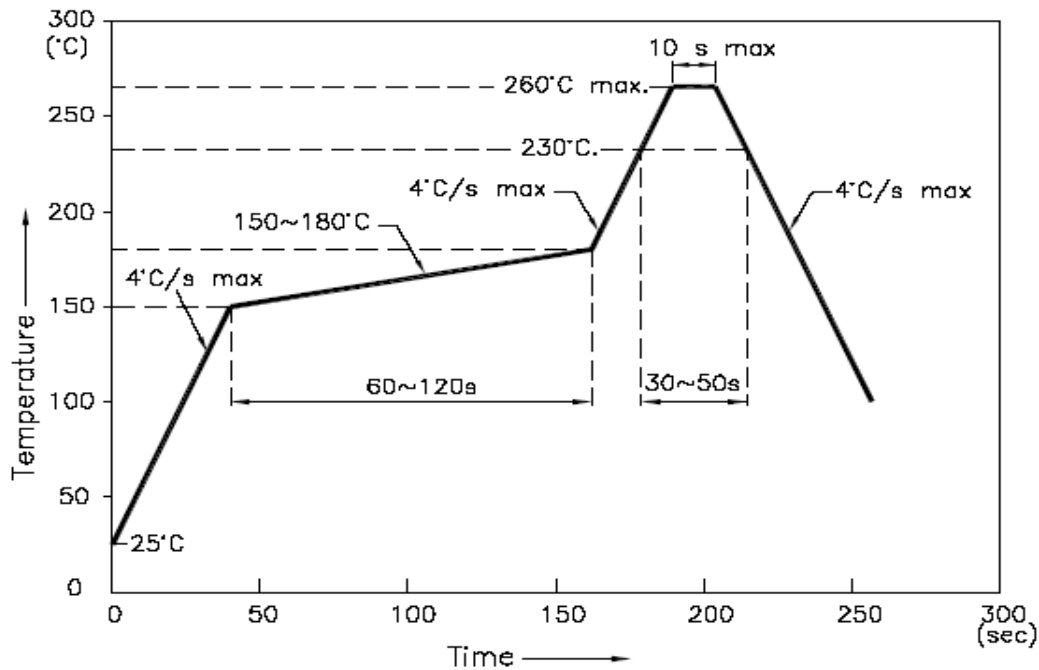


Directive Characteristics

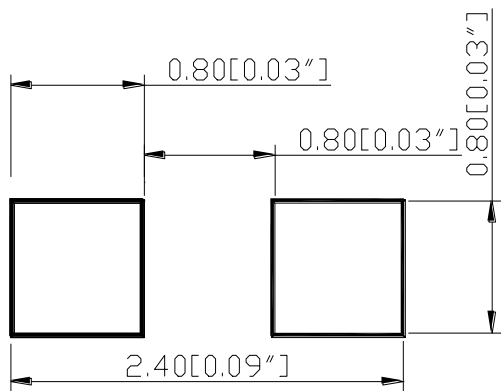


Solder Profile & Footprint

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



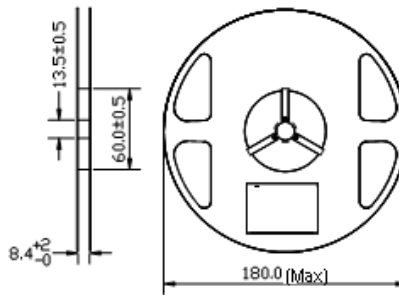
Recommended Pad Layout



Units: mm

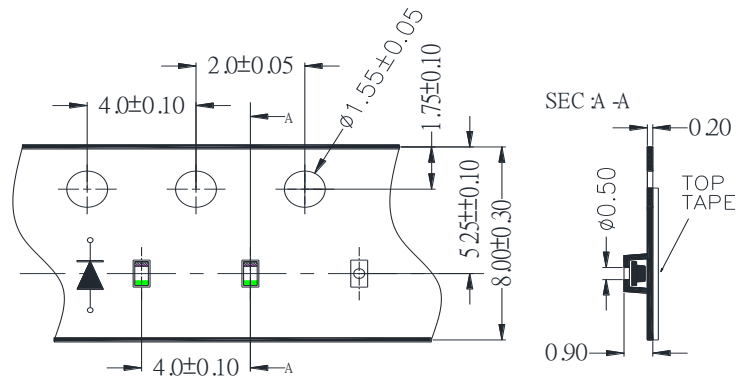
Packing

Reel Dimension:



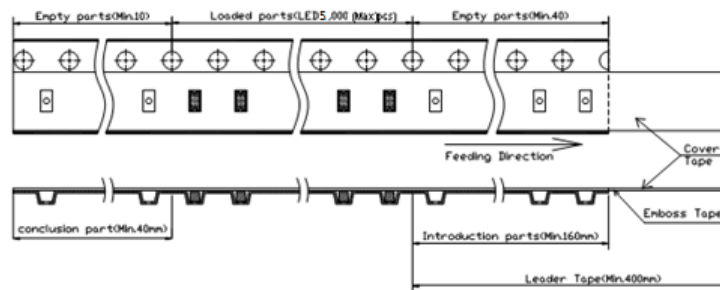
(Unit: mm)

Tape Dimension:

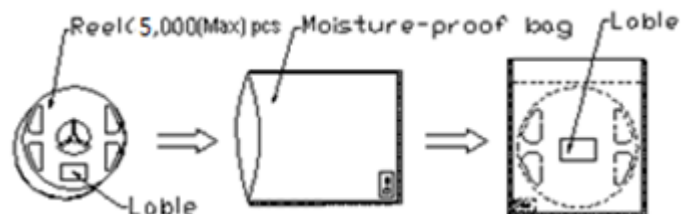


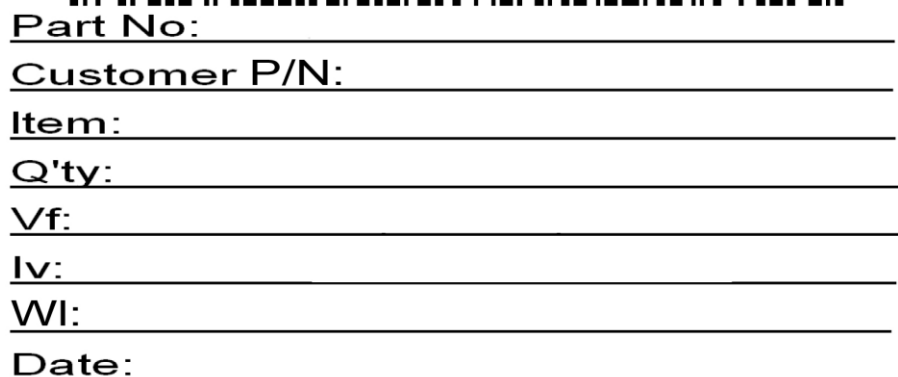
(Unit: mm)

Arrangement of Tape:



Packaging Specifications:





Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP595-S03	Iv=4.0mcd typ. @ I _F =3mA, λ _D =630nm to 650nm	5,000 units

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Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-S03	V1.0	04/14/2025

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.

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