

QT-Brightek Chip LED Series

0402 SMD Red LED

Part No.: QBLP595-R3

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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:

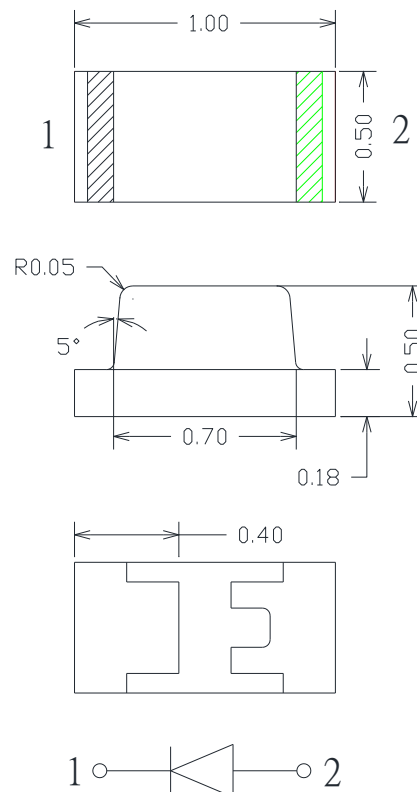
- Status indication
- Back lighting application

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-R3	Red	20	2.0	2.5	625	630	639	645	45	70	132

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	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=20mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

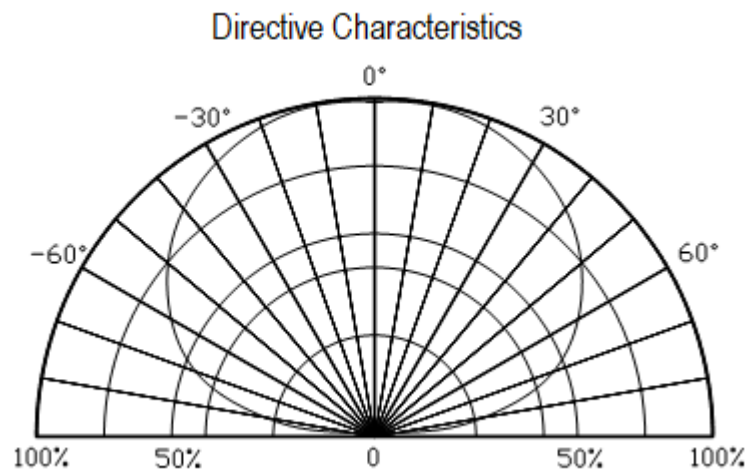
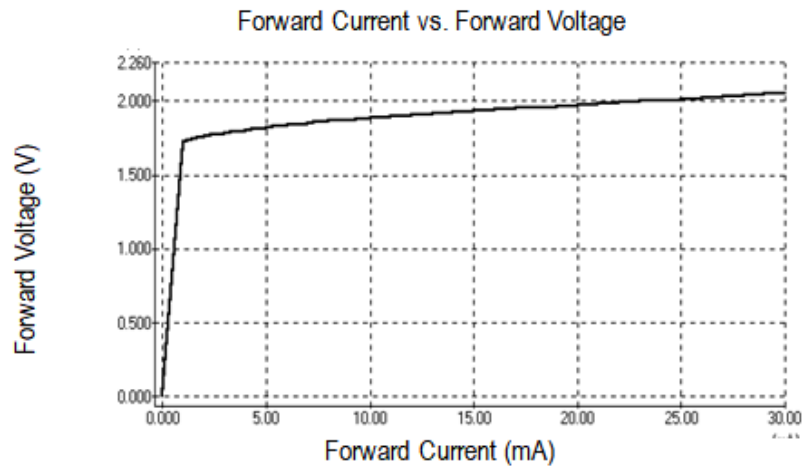
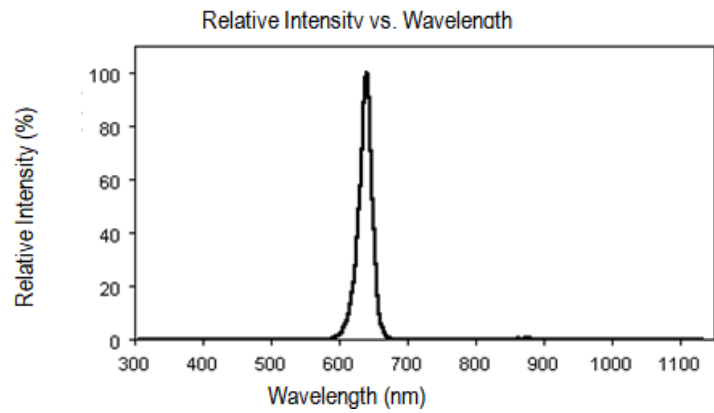
Luminous Intensity I_V @ I_F=20mA

Bin	Min.	Max.	Unit
G3	45	54	mcd
H3	54	68	
I3	68	84	
J3	84	105	
K3	105	132	

Dominant Wavelength λ_D @ I_F=20mA

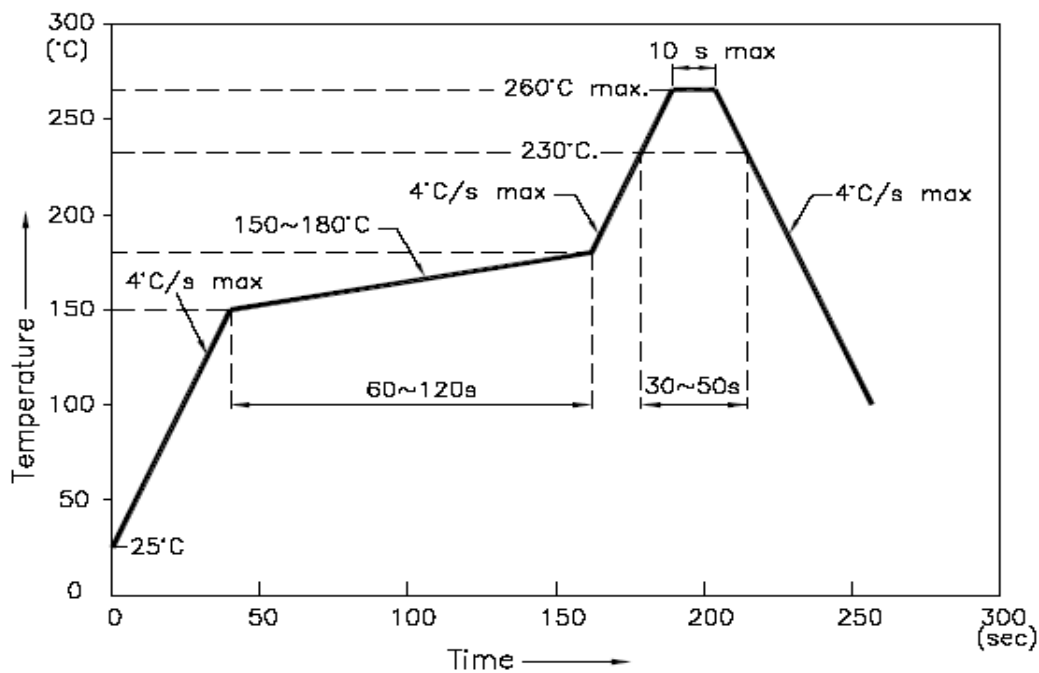
Bin	Min.	Max.	Unit
U	625	630	nm
V	630	635	
W	635	639	

Characteristic Curves

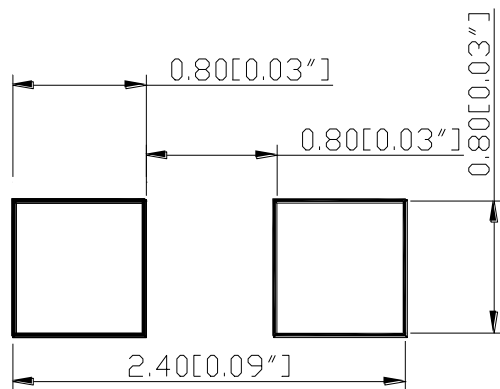


Solder Profile & Footprint

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



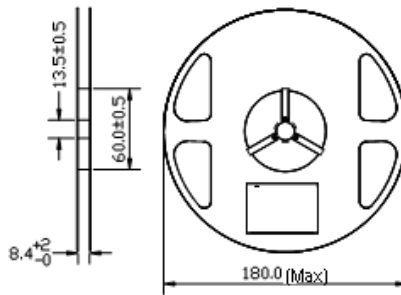
Recommended Pad Layout



Units: mm

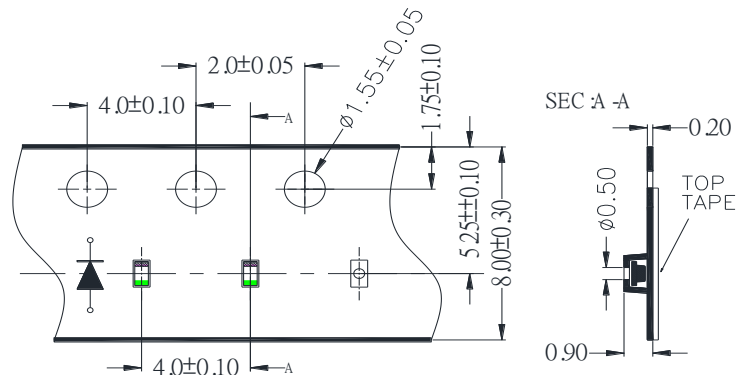
Packing

Reel Dimension:



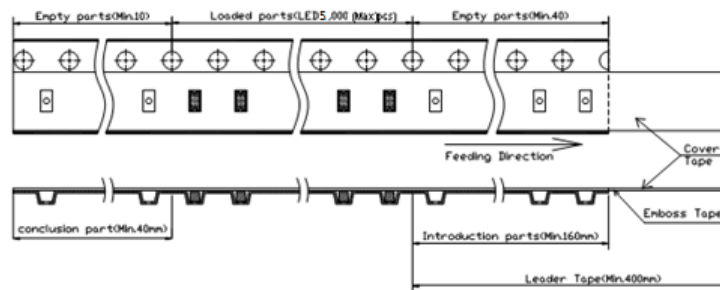
(Unit: mm)

Tape Dimension:

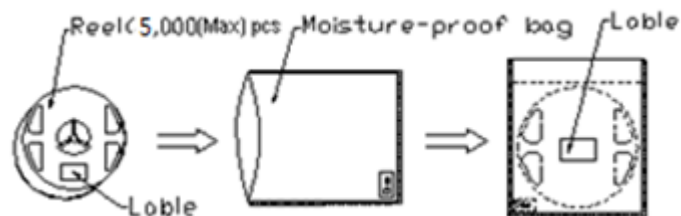


(Unit: mm)

Arrangement of Tape:



Packaging Specifications:



Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-R3	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.