

QT-Brightek Chip LED Series

0402 SMD Red LED

Part No.: QBLP595-2R3

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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:

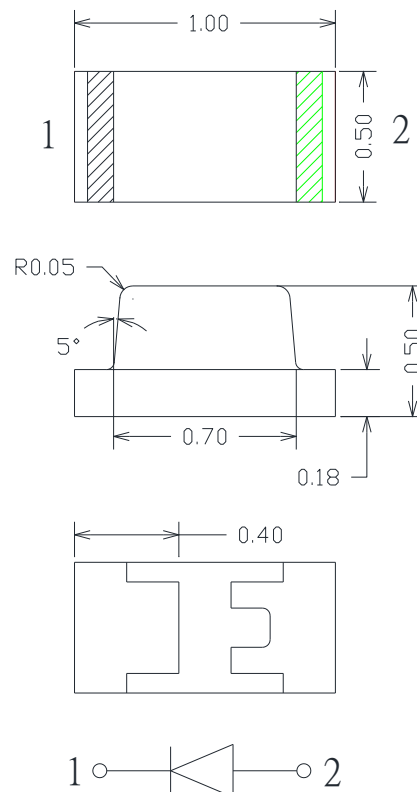
- Status indication
- Back lighting application

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.
QBLP595-2R3	Red	20	2.0	2.5	625	631	639	639	35	54	105

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

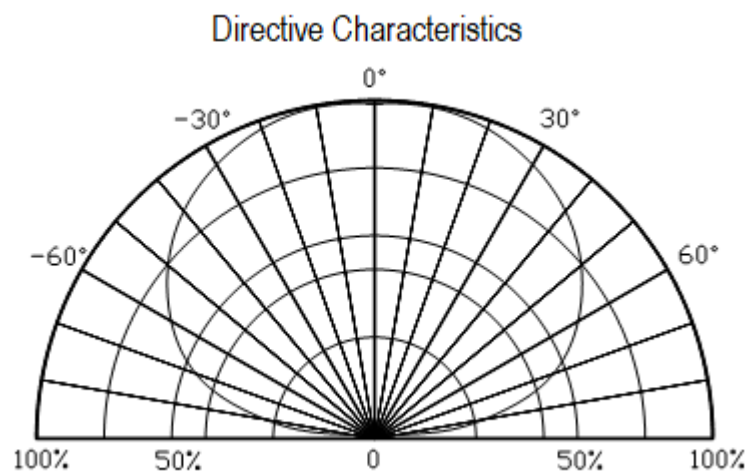
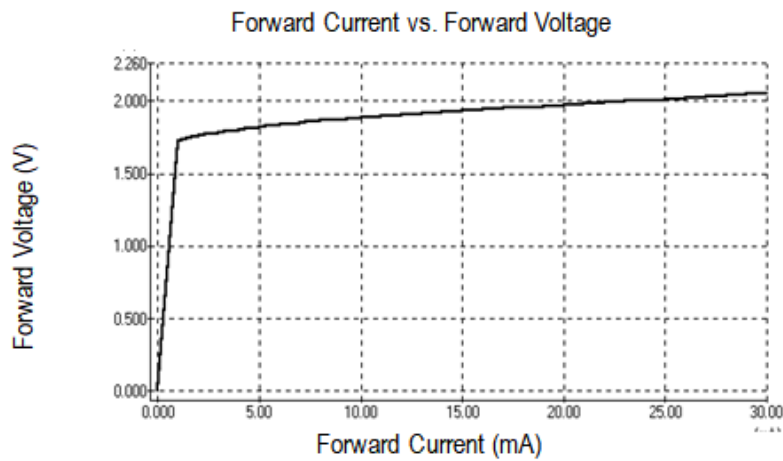
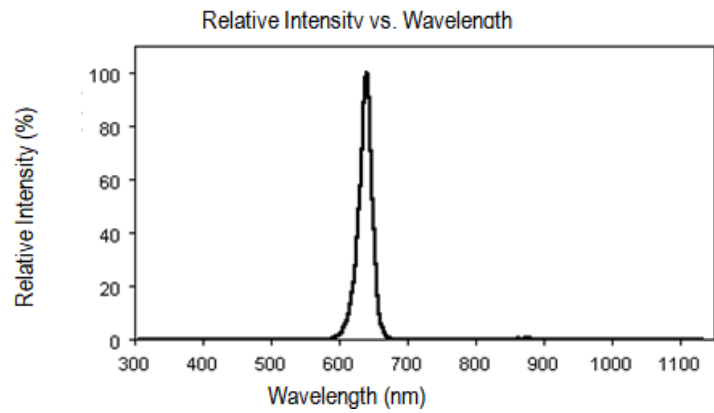
Luminous Intensity I_V @ I_F=20mA

Bin	Min.	Max.	Unit
F	35	43	mcd
G	43	53	
H	53	67	
I	67	84	
J	84	105	

Dominant Wavelength λ_D @ I_F=20mA

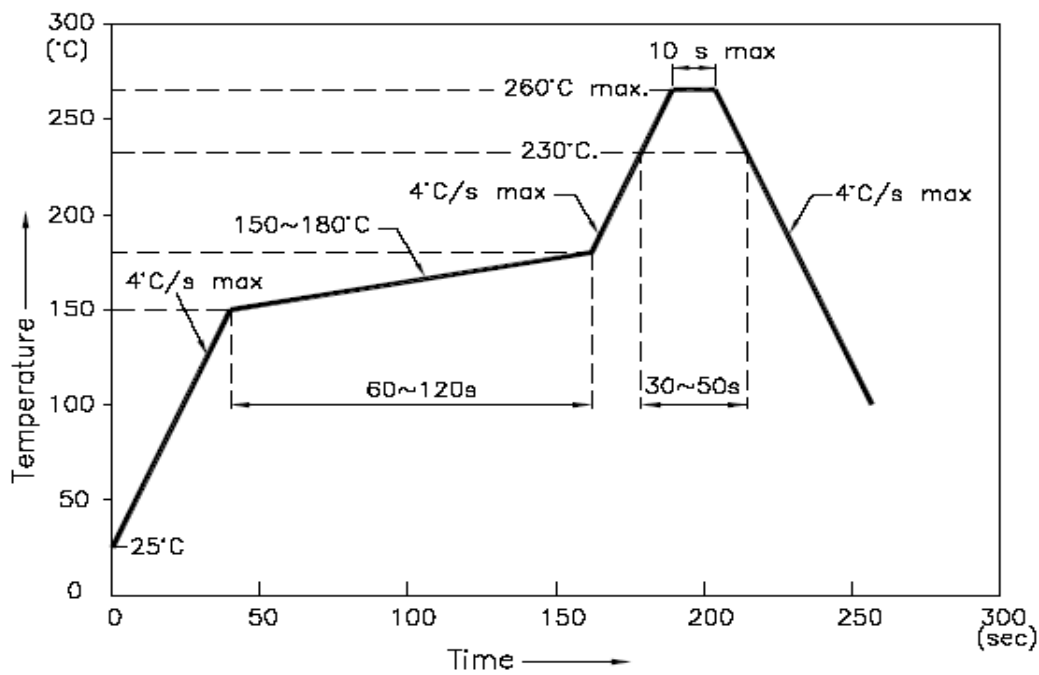
Bin	Min.	Max.	Unit
U	625	630	nm
V	630	635	
W	635	639	

Characteristic Curves

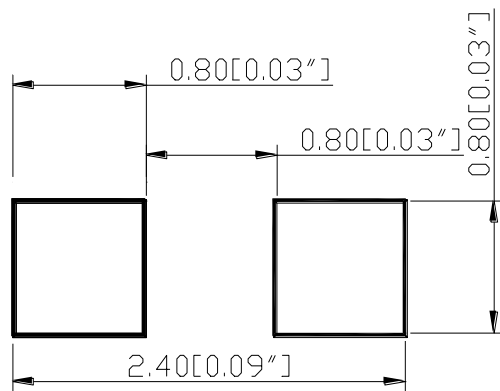


Solder Profile & Footprint

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



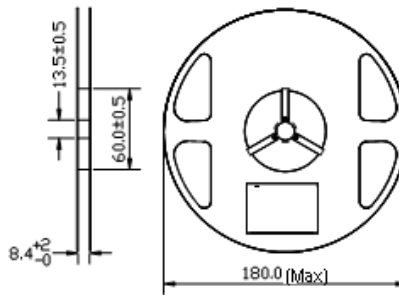
Recommended Pad Layout



Units: mm

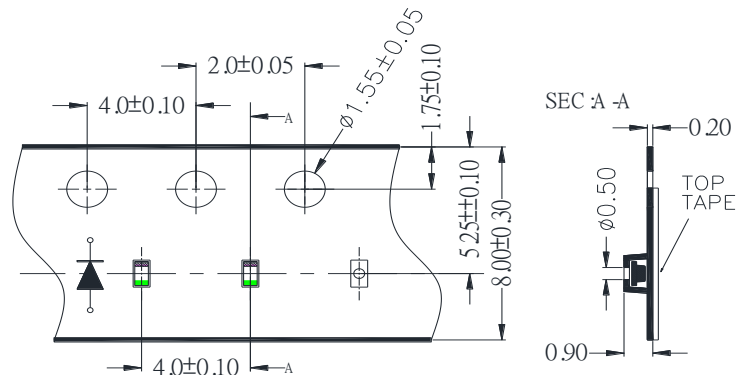
Packing

Reel Dimension:



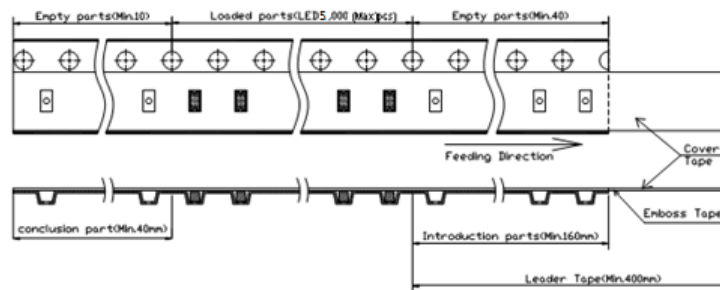
(Unit: mm)

Tape Dimension:

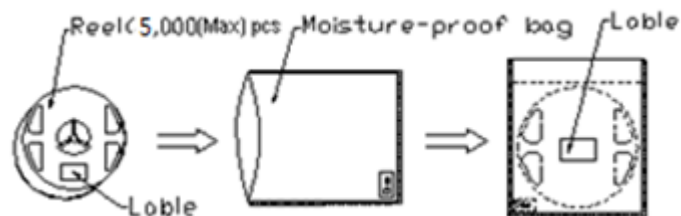


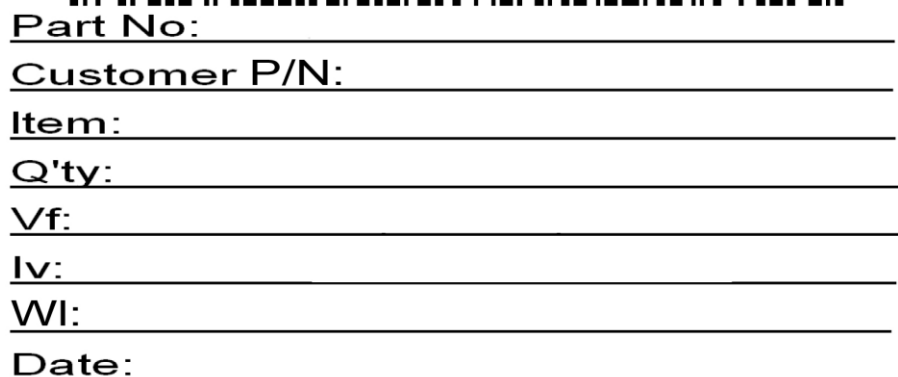
(Unit: mm)

Arrangement of Tape:



Packaging Specifications:





Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP595-2R3	Iv=54mcd typ. @ I _F =20mA, λ _D =625nm to 639nm	5,000 units

Product: QBLP595-2R3	Date: April 14, 2025	Page 8 of 9
	Version# 1.0	



Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-2R3	V1.0	04/14/2025

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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.