

# **QT-Brightek Chip LED Series**

## **SMD 0402 Red LED**

**Part No.: QBLP595-R5-2897**

**5: 5mA**

**2897: High Brightness Version**

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## Introduction

**Feature:**

- Water clear lens
- Color: red
- Package in tape and reel
- Compact 0402 package
- AlInGaP technology
- Viewing angle: 140° typ.

**Description:**

These ultra bright 0402 LEDs have a height profile of 0.50mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

**Application:**

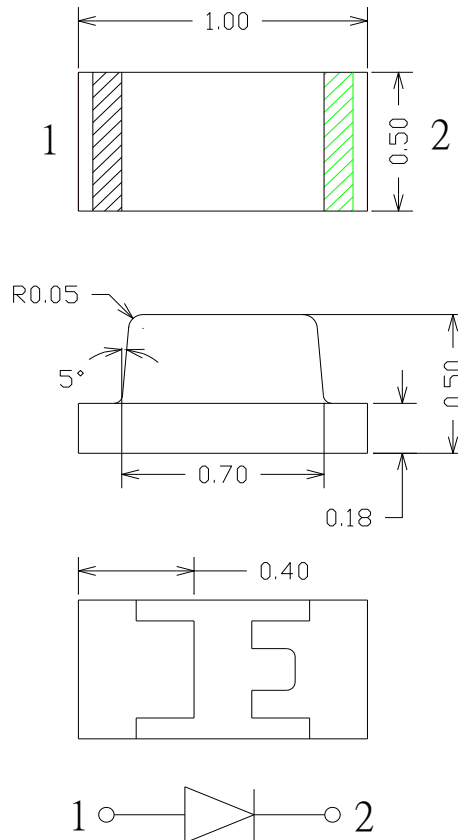
- Status indication
- Back lighting application

**Certification & Compliance:**

- ISO9001
- RoHS Compliant



**Dimension:**



Units: mm / tolerance = +/-0.1mm

**Electrical / Optical Characteristic (Ta=25 °C)**

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>D</sub> (nm)			I <sub>V</sub> (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP595-R5-2897	Red	5	1.85	2.3	615	622	630	50	95

**Absolute Maximum Rating**

Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SO L</sub> (°C)**
AllnGaP	69	30	125	5	-40 ~ +80	-40 ~ +85	260

\*Duty 1/8 @ 1KHz

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

**Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=5mA**

Bin	Min.	Max.	Unit
□	1.7	2.3	V

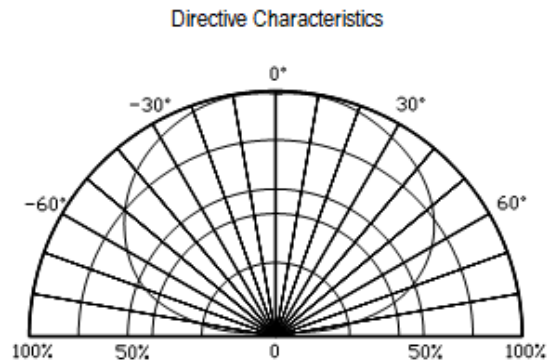
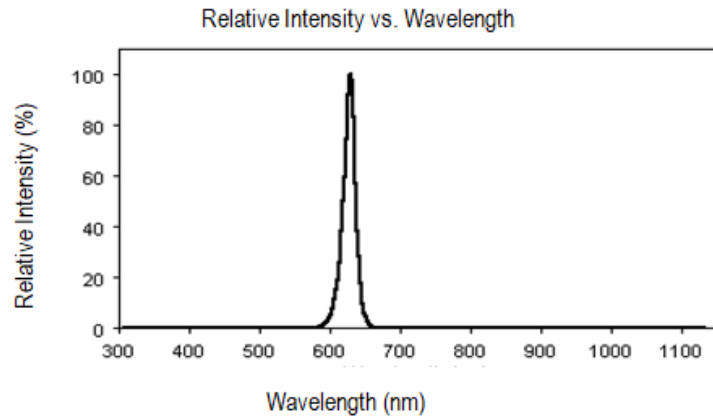
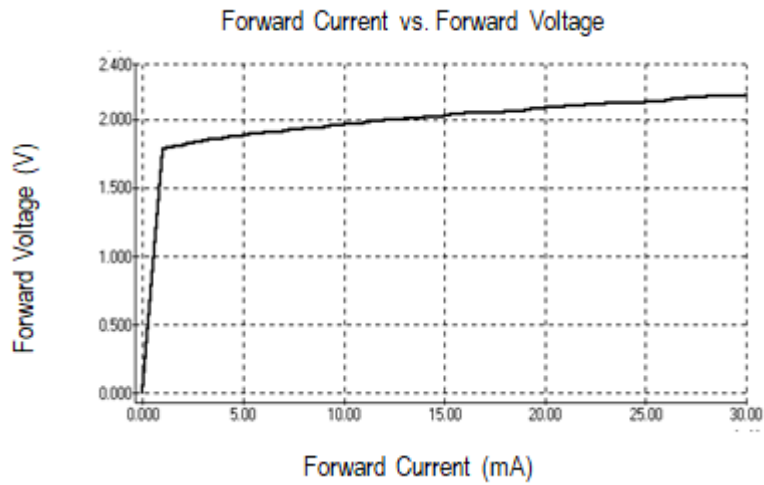
**Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=5mA**

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

**Dominant Wavelength λ<sub>D</sub> @ I<sub>F</sub>=5mA**

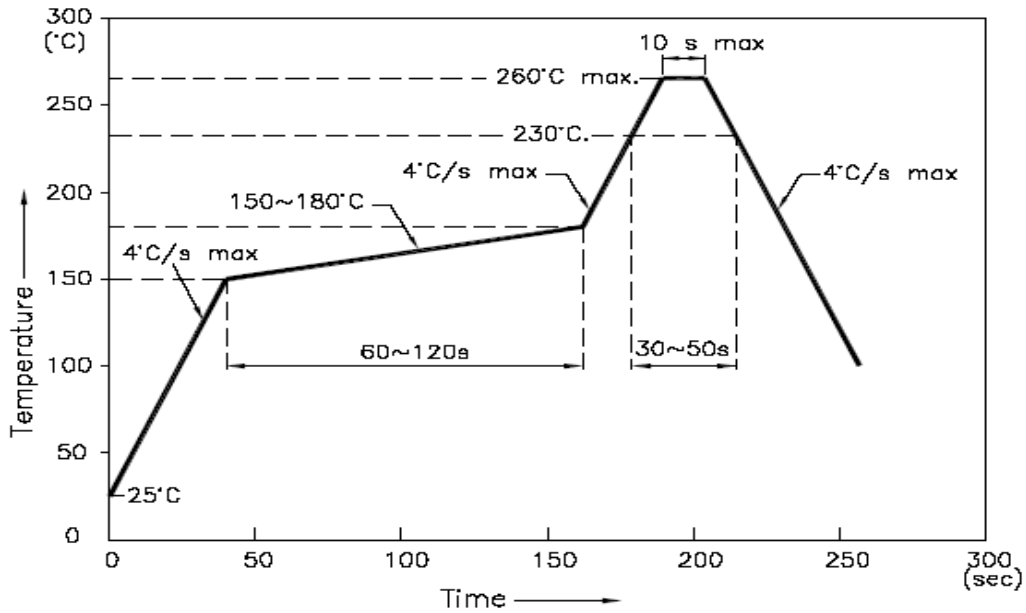
Bin	Min.	Max.	Unit
s	615	620	nm
t	620	625	
u	625	630	

### Characteristic Curves

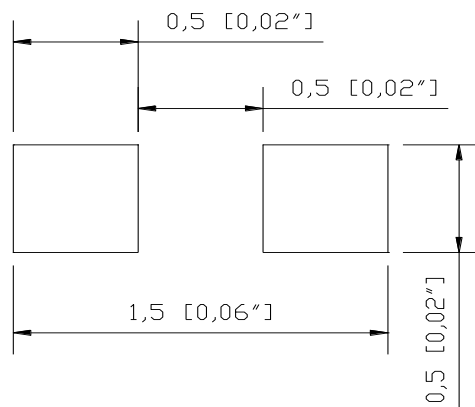


## Solder Profile & Footprint

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



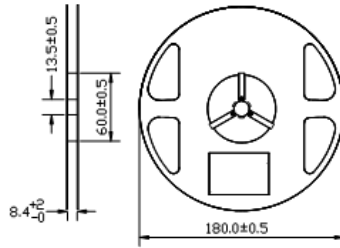
### Recommended Pad Layout



Units: mm

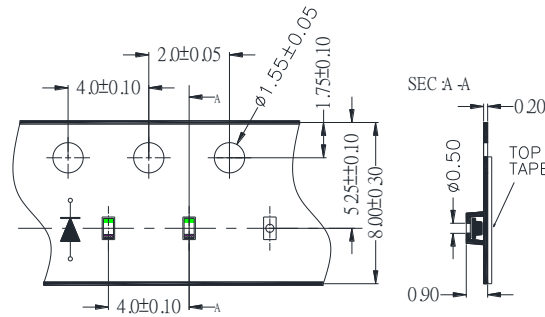
## Packing

### Reel Dimension:



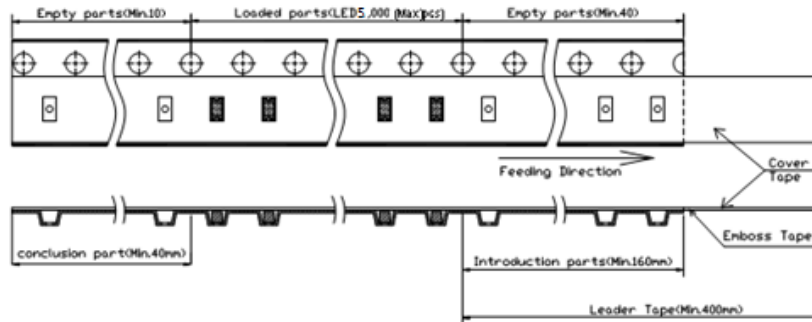
Unit: mm

### Tape Dimension:

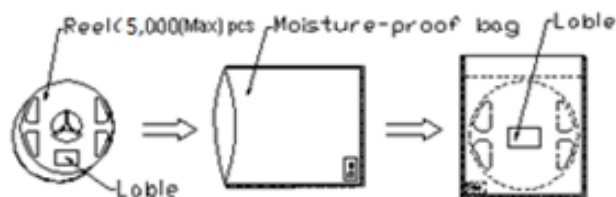


Unit: mm

### Arrangement of Tape:



### Packaging Specifications:





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### Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP595-R5-2897	QBLP595-R5-2897	Iv=95mcd typ. @ I <sub>F</sub> =5mA / Color=615 to 630nm	5,000 units



**Revision History**

Description:	Revision #	Revision Date
New Release of QBLP595-R5-2897	V1.0	07/20/2022

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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.