

# **QT-Brightek Chip LED Series**

## **SMD 0805 Blue LED**

**Part No.: QBLP631-IB5-2897**

**2897: High Brightness Version  
5: 5mA**

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## Introduction

### Feature:

- Water clear lens
- Package in tap and reel
- 0805 LED package
- InGaN technology
- Viewing angle: 140 deg typ.

### Description:

These ultra bright 0805 LEDs have a height profile of 0.8mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

### Application:

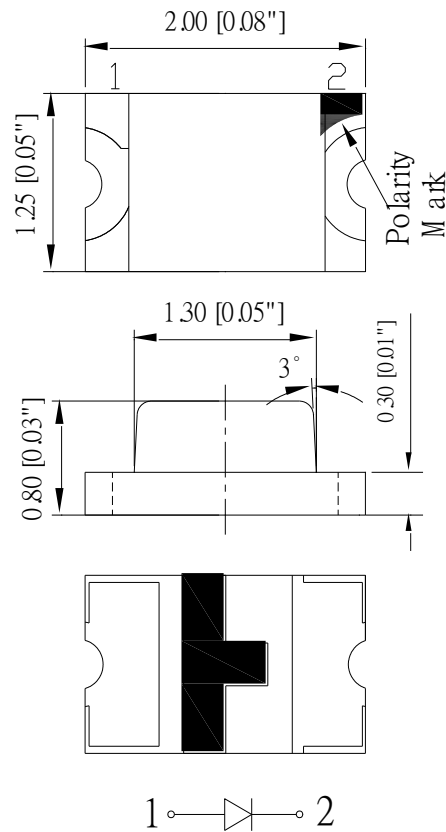
- Status indication
- Back lighting application

### 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)			λ <sub>P</sub> (nm)	I <sub>V</sub> (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP631-IB5-2897	Blue	20	2.7	3.4	470	475	480	470	41	80

**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)**
InGaN	102	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
e	2.5	2.8	V
f	2.8	3.1	
g	3.1	3.4	

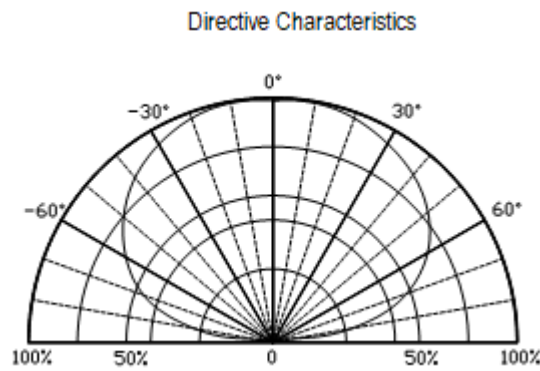
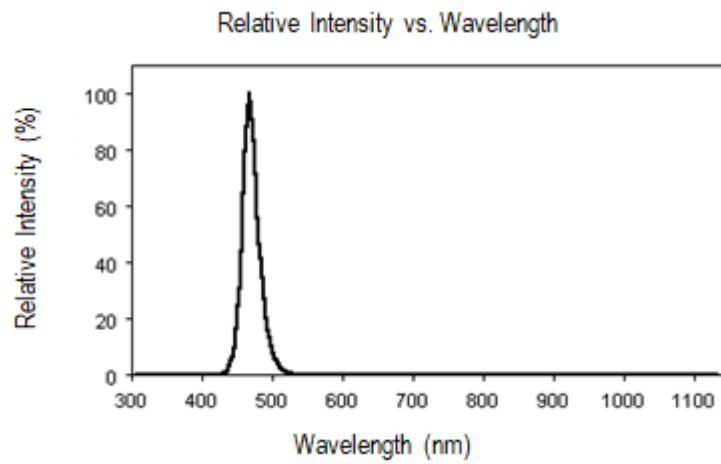
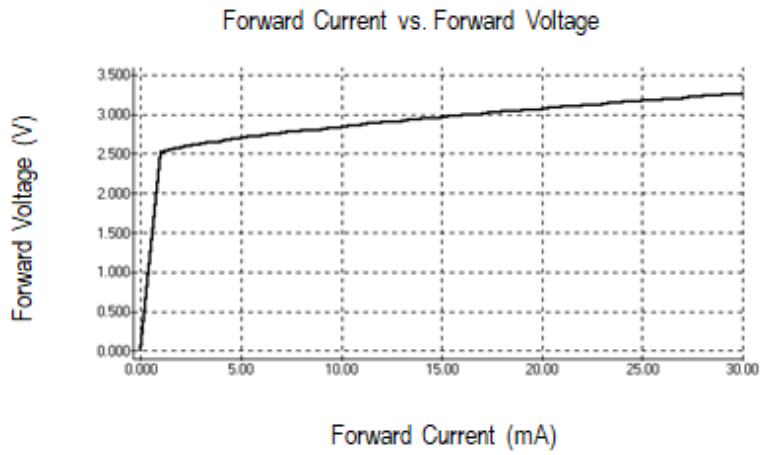
**Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=5mA**

Bin	Min.	Max.	Unit
E	41	52	mcd
F	52	65	
G	65	82	
H	82	103	
I	103	129	

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

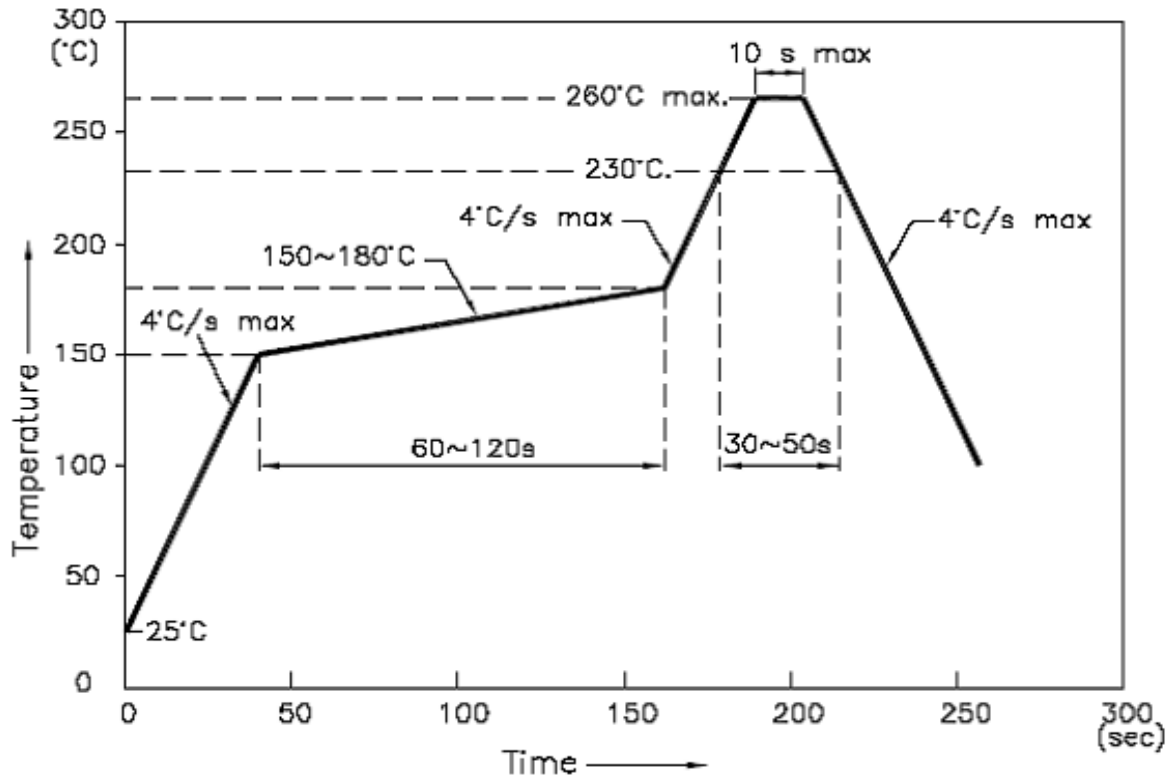
Bin	Min.	Max.	Unit
I	470	472.5	nm
J	472.5	475	
K	475	477.5	
L	477.5	480	

## Characteristic Curves

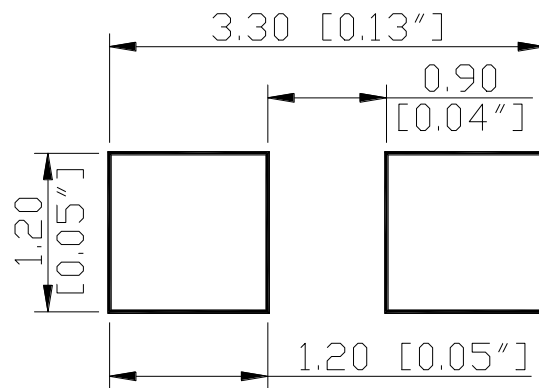


### Solder Profile & Footprint

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



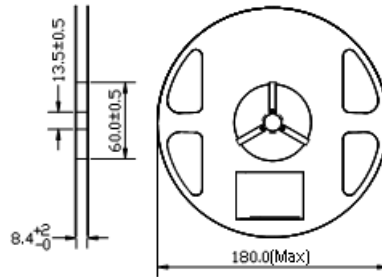
### Recommended Pad Layout



Units: mm

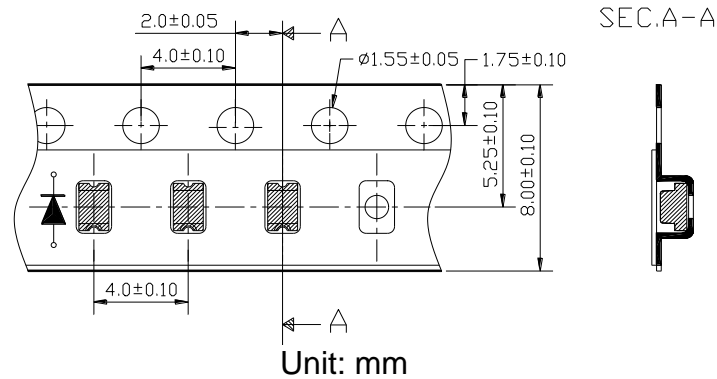
## Packing

### Reel Dimension:



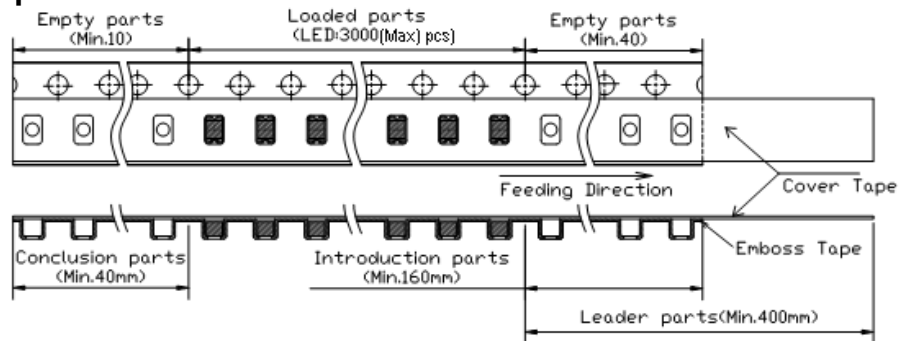
Unit: mm

### Tape Dimension:

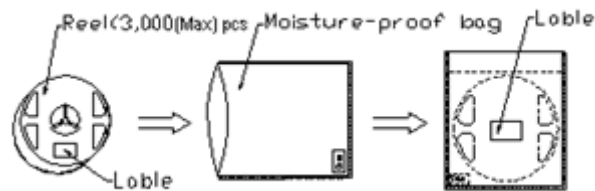


Unit: mm

### Arrangement of Tape:



### Packaging Specification:



**Labeling**

Part No: \_\_\_\_\_

Customer P/N: \_\_\_\_\_

Item: \_\_\_\_\_

Q'ty: \_\_\_\_\_

Vf: \_\_\_\_\_

Iv: \_\_\_\_\_

WI: \_\_\_\_\_

Date: \_\_\_\_\_

**Made in China****Ordering Information**

Orderable Part #	Spec Range	Quantity per reel
QBLP631-IB5-2897	Iv=80mcd typ. / $\lambda_D = 470\text{nm to } 480\text{nm @ } 5\text{mA}$	3000 units



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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP631-IB5-2897	V1.0	03/27/2024

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
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.