

# **QT-Brightek Chip LED Series**

## **0402 SMD Chip LED**

**Part No.: QBLP595-IB5**

**5: 5mA**

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## Introduction

### Feature:

- Water clear lens
- Package in tape and reel
- Compact 0402 package
- InGaN technology
- Viewing angle: 140° typ.
- Height profile: 0.5mm

### Application:

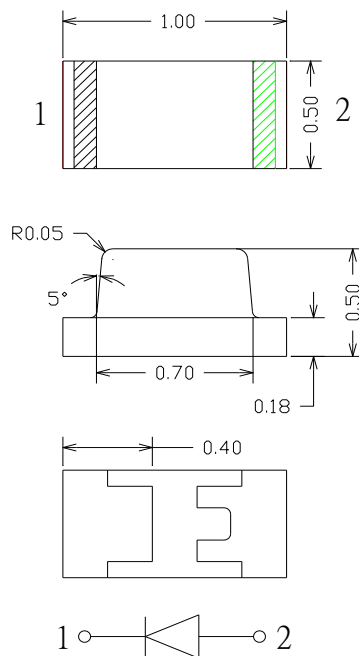
- Status indication
- Back lighting application

### Certification & Compliance:

- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / tolerance = +/-0.1mm

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

Product	Color	I <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.
QBLP595-IB5	Blue	5	2.7	3.1	465	470	475	465	20	38

## 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>SOL</sub> (°C)**
InGaN	93	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<sub>F</sub> @ I<sub>F</sub>=5mA

Bin	Min.	Max.	Unit
e	2.5	2.8	V
f	2.8	3.1	

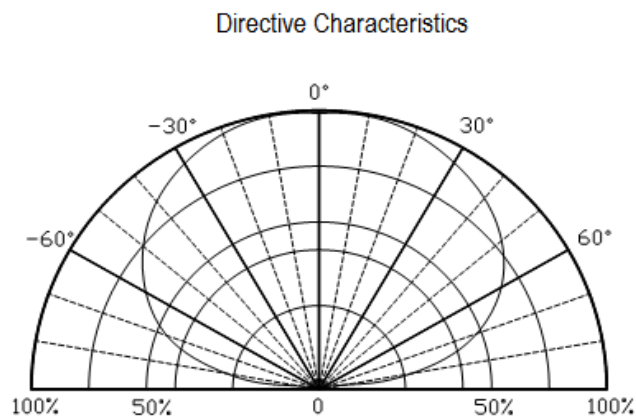
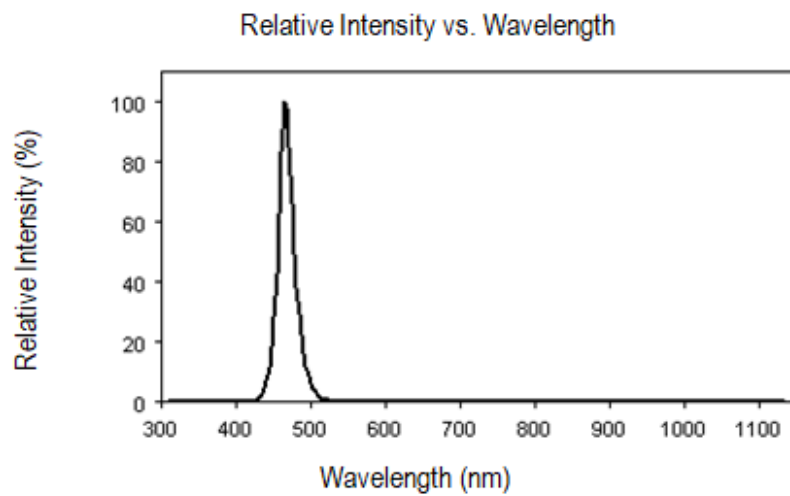
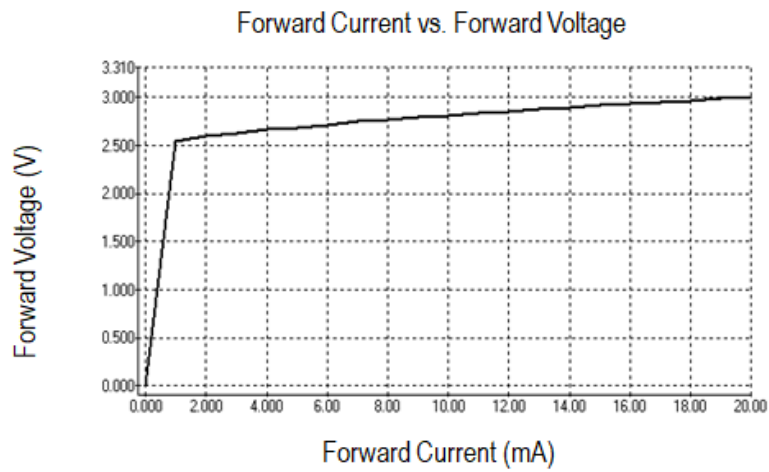
## Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=5mA

Bin	Min.	Max.	Unit
C	20	25	mcd
D	25	32	
E	32	40	
F	40	50	
G	50	63	

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

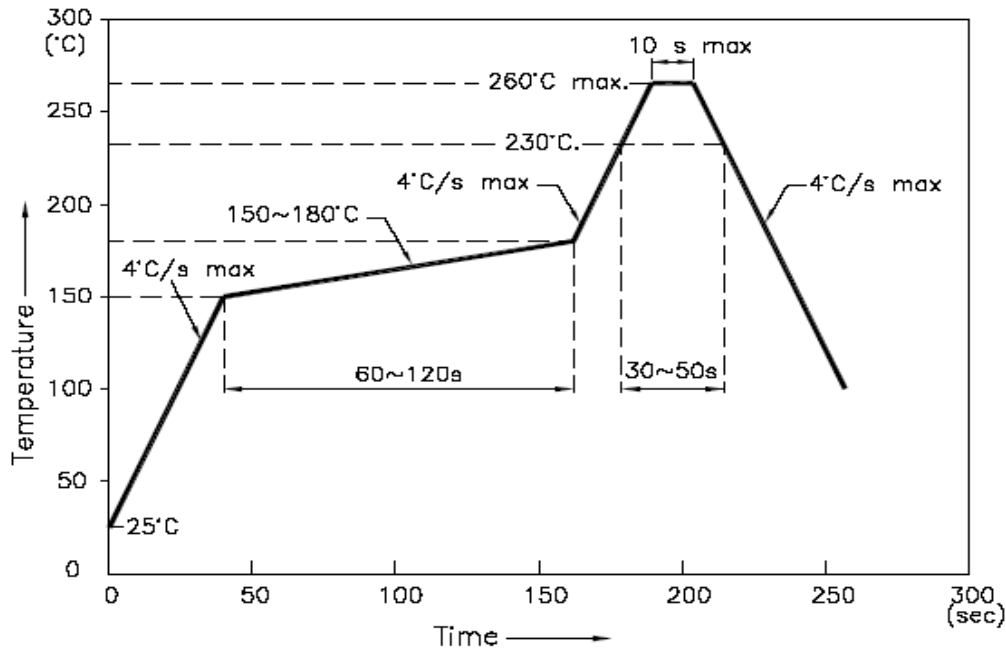
Bin	Min.	Max.	Unit
G	465	467.5	nm
H	467.5	470	
I	470	472.5	
J	472.5	475	

## Characteristic Curves

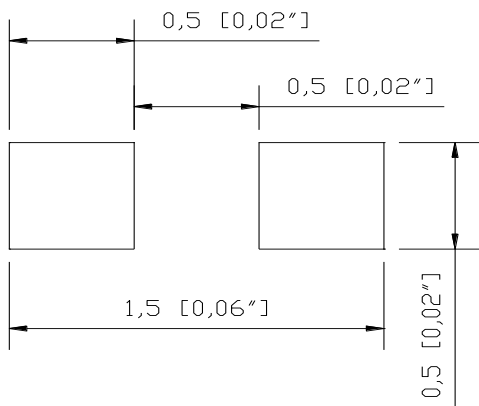


Solder Profile & Footprint

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



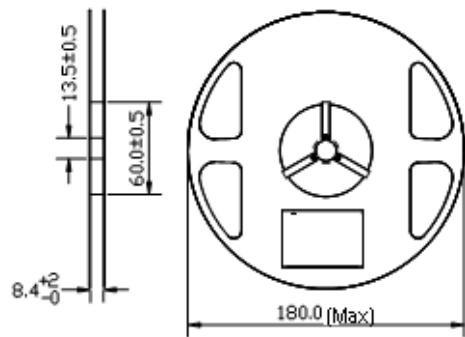
Recommended Pad Layout



Units: mm

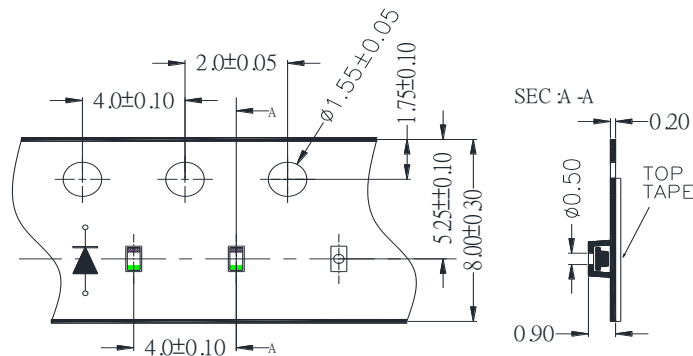
Packing

Reel Dimension:



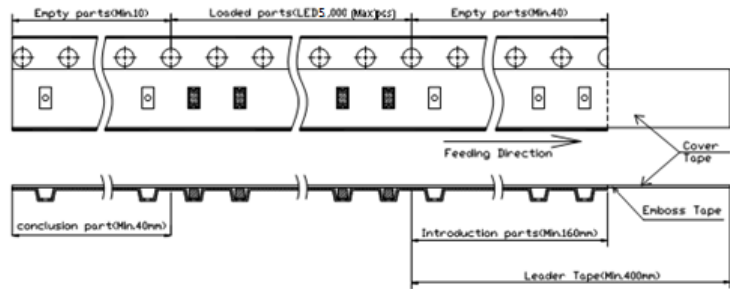
(Unit: mm)

Tape Dimension:

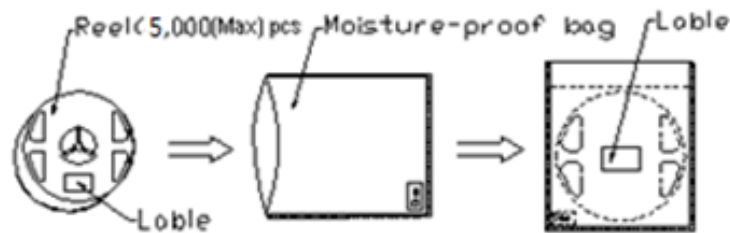


(Unit: mm)

Arrangement of Tape:



Packaging Specifications:







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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-IB5	V1.0	08/04/2022
Add typical WLP value	V1.1	02/21/2025

## Disclaimer

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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.