

# QT-Brightek Chip LED Series

## 0402 SMD Chip LED

**Part No.: QBLP595-2IB5**

**2IB: Blue 460 to 470nm  
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.

**Description:**

These compact 0402 LEDs have a height profile of 0.5mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

**Application:**

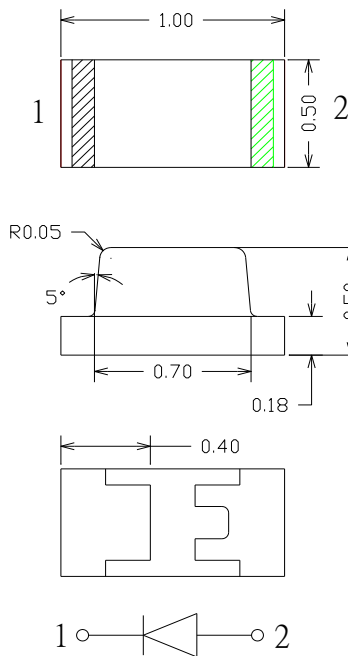
- Status indication
- Back lighting application

**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.
QBLP595-2IB5	Blue	5	2.9	3.4	460	465	470	12.5	24

### 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	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	

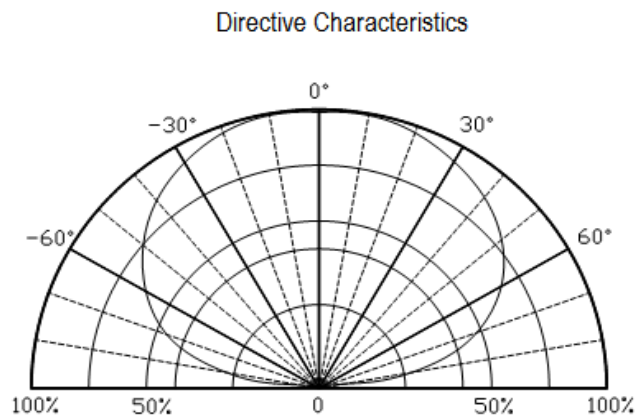
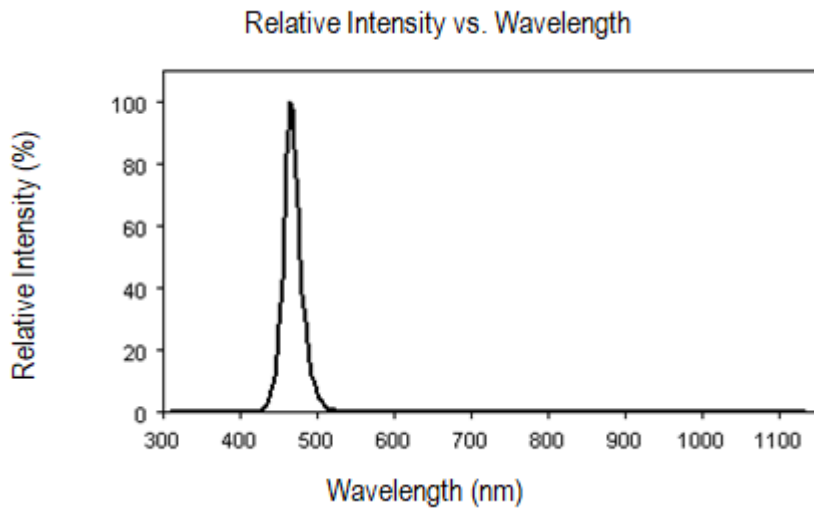
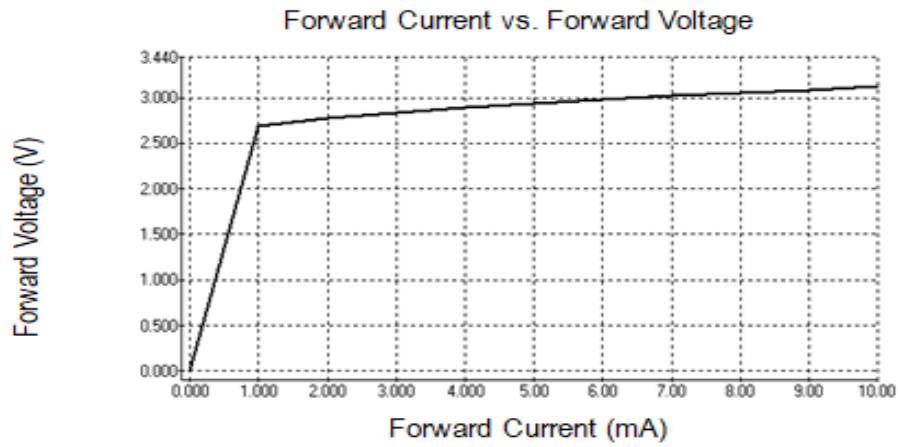
### Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=5mA

Bin	Min.	Max.	Unit
A	12.5	16	mcd
B	16	20	
C	20	25	
D	25	32	
E	32	40	

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

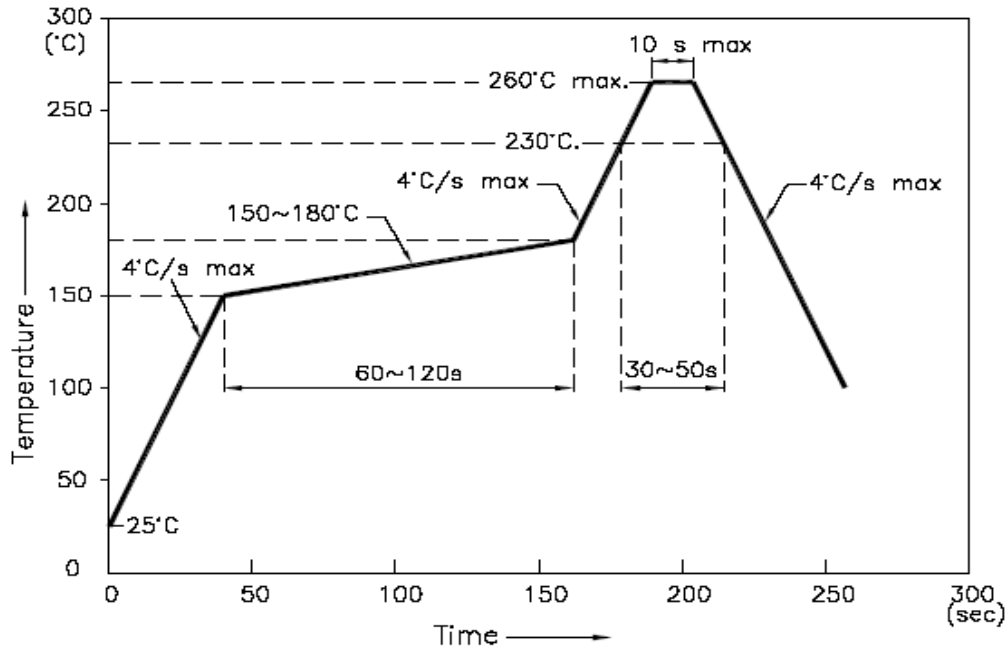
Bin	Min.	Max.	Unit
E	460	462.5	nm
F	462.5	465	
G	465	467.5	
H	467.5	470	

### Characteristic Curves

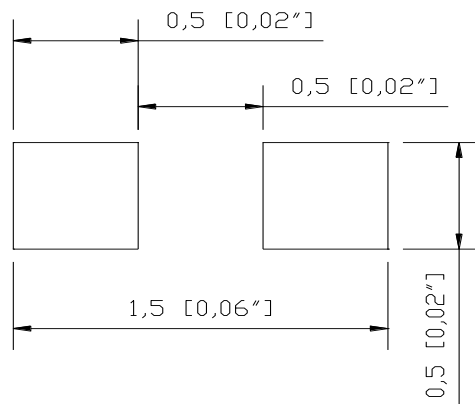


## Solder Profile & Footprint

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



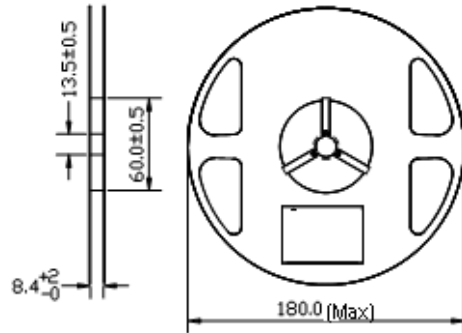
### Recommended Pad Layout



Units: mm

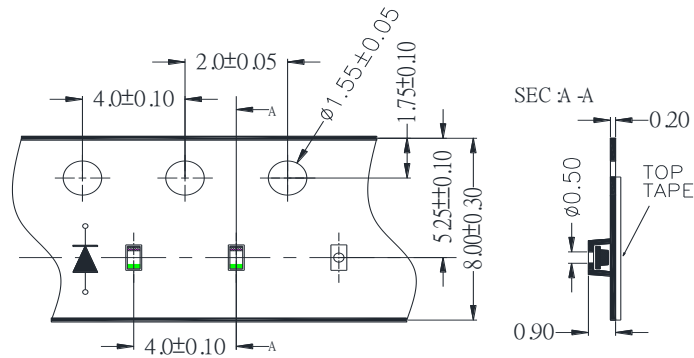
## Packing

Reel Dimension:



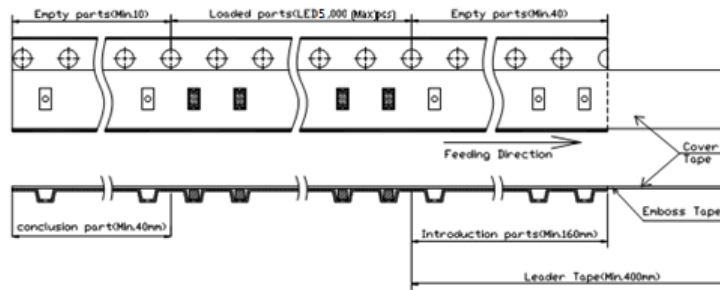
(Unit: mm)

Tape Dimension:

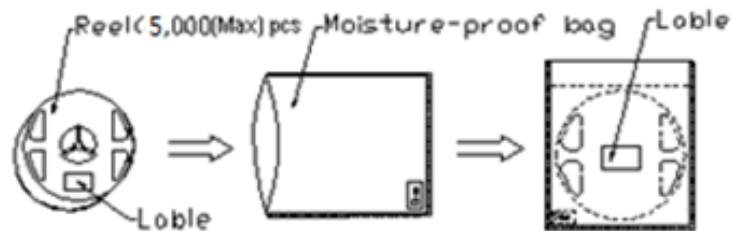


(Unit: mm)

Arrangement of Tape:



Packaging Specifications:



**Labeling**

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

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

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

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

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

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

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

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

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

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP595-2IB5	QBLP595-2IB5	Iv=24mcd typ. @ 5mA, $\lambda_D=460\text{nm to }470\text{nm}$	5,000 units



**Revision History**

Description:	Revision #	Revision Date
New Release of QBLP595-2IB5	V1.0	08/05/2022

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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.

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