

QT-Brightek Chip LED Series

0402 SMD Chip LED

Part No.: QBLP595-2IB

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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:

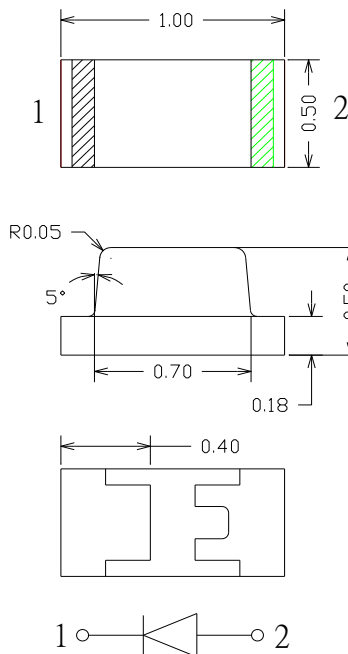
- Status indication
- Back lighting application

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)		λ _D (nm)			λ _P (nm)	I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP595-2IB	Blue	20	3.2	3.7	460	462	470	458	32	60

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)**
InGaN	111	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_F @ I_F=20mA

Bin	Min.	Max.	Unit
f	2.8	3.1	V
g	3.1	3.4	
h	3.4	3.7	

Luminous Intensity I_V @ I_F=20mA

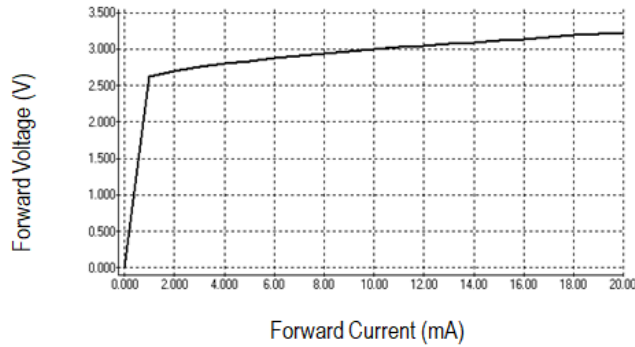
Bin	Min.	Max.	Unit
E	32	40	mcd
F	40	50	
G	50	63	
H	63	80	
I	80	100	

Dominant Wavelength λ_D @ I_F=20mA

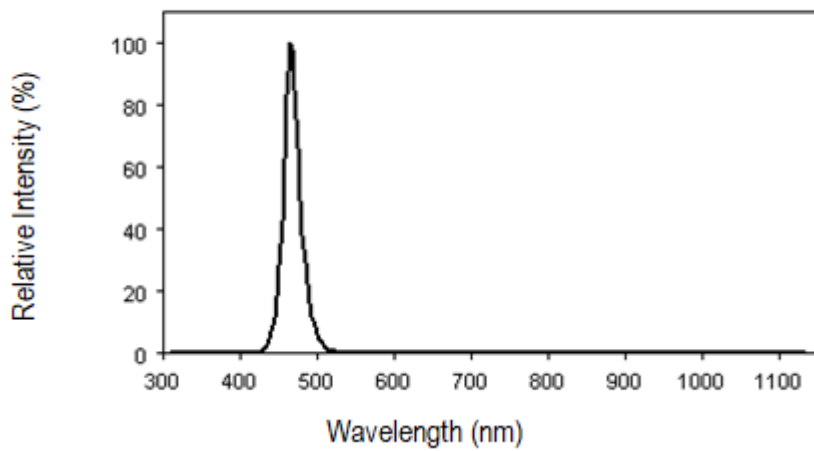
Bin	Min.	Max.	Unit
E	460	462.5	nm
F	462.5	465	
G	465	467.5	
H	467.5	470	

Characteristic Curves

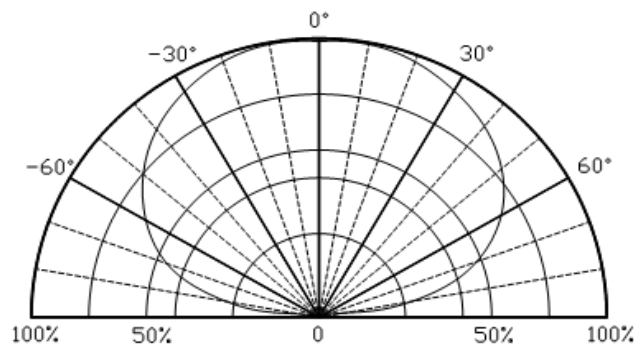
Forward Current vs. Forward Voltage



Relative Intensity vs. Wavelength

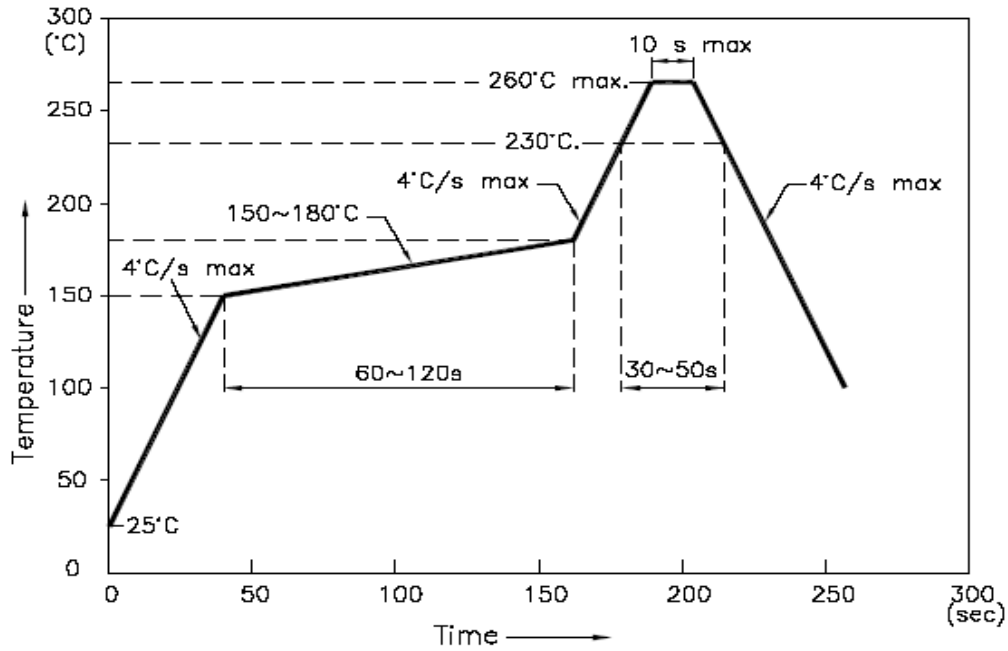


Directive Characteristics

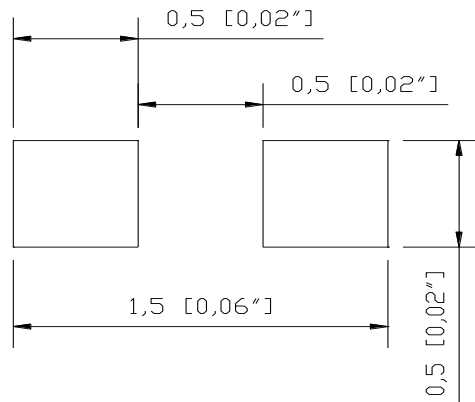


Solder Profile & Footprint

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



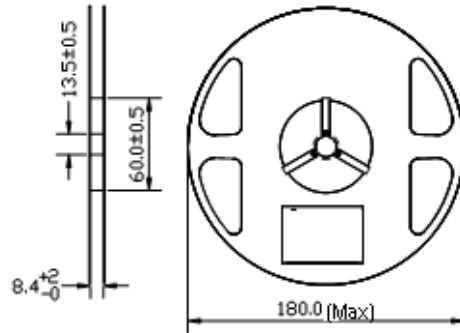
Recommended Pad Layout



Units: mm

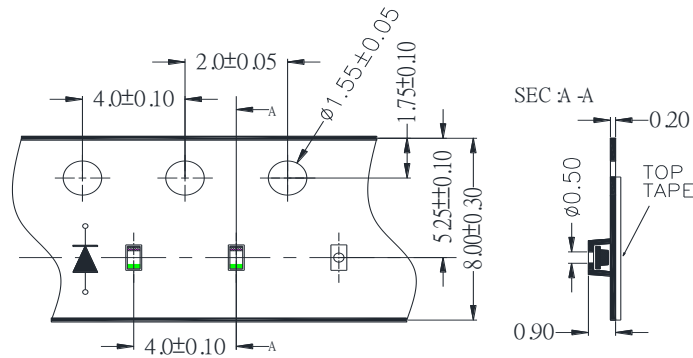
Packing

Reel Dimension:



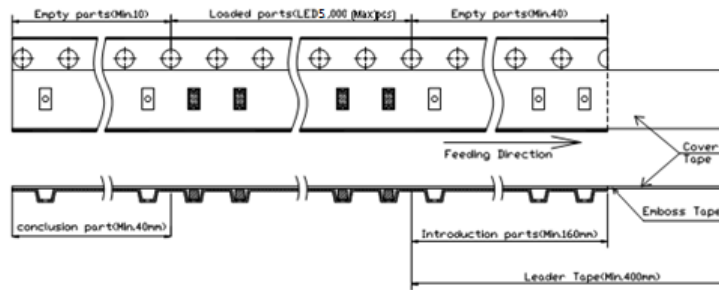
(Unit: mm)

Tape Dimension:

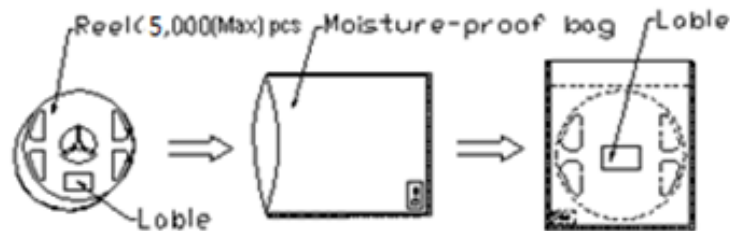


(Unit: mm)

Arrangement of Tape:



Packaging Specifications:



Labeling

Part No: _____

Customer P/N: _____

Item: _____

Q'ty: _____

Vf: _____

Iv: _____

WI: _____

Date: _____

Made in China**Ordering Information**

Orderable Part #	Spec Range	Quantity per reel
QBLP595-2IB	Iv=60mcd typ. @ 20mA, $\lambda_D=460\text{nm}$ to 470nm	5,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-2IB	V1.0	08/13/2023

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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.