QT-Brightek Chip LED Series

SMD 0805 Blue LED

Part No.: QBLP631-2IB

2IB: 460 to 470nm

Table of Contents:

Introduction

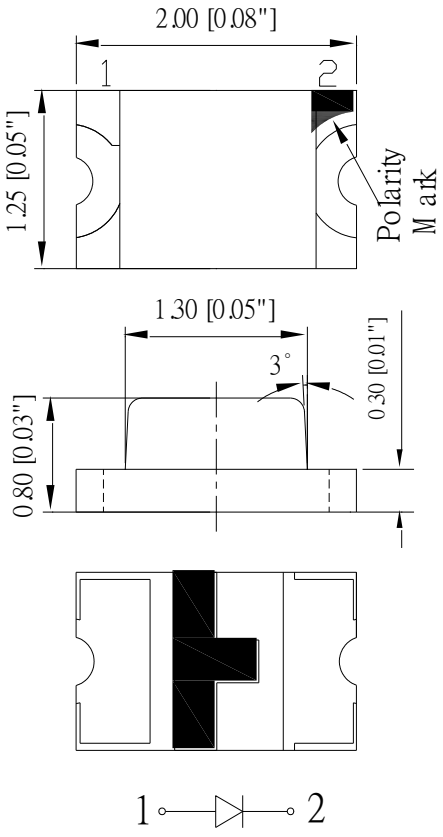
Feature:
- Water clear lens
- Package in tap and reel
- 0805 LED package
- InGaN technology
- Viewing angle: 140 deg typ.

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_F (mA)	V_F (V)		λ_D (nm)			λ_P (nm)	I_V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.
QBLP631-2IB	Blue	20	2.9	3.4	460	466	470	462	55	104

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	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_F @ I_F=20mA

Bin	Min.	Max.	Unit
e	2.5	2.8	V
f	2.8	3.1	
g	3.1	3.4	

Luminous Intensity I_V @ I_F=20mA

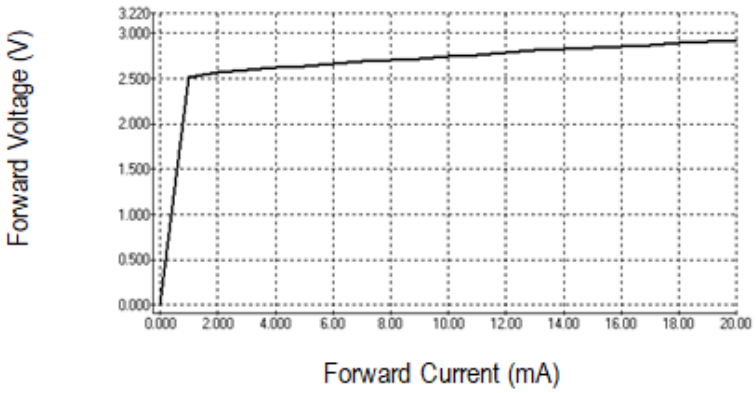
Bin	Min.	Max.	Unit
1	55	70	mcd
2	70	89	
3	89	112	
4	112	141	
5	141	178	

Dominant Wavelength λ_D @ I_F=20mA

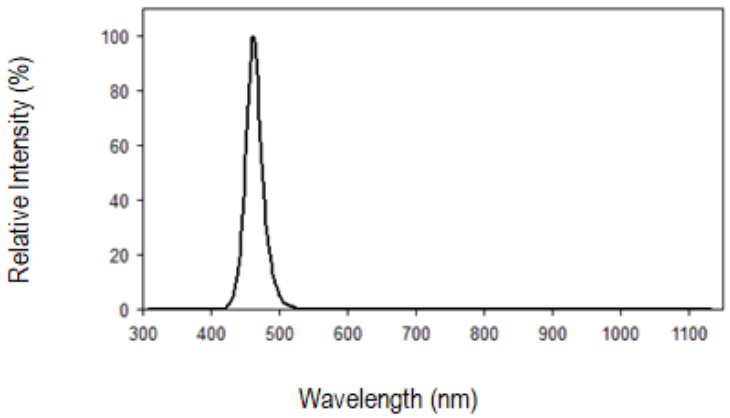
Bin	Min.	Max.	Unit
E	460	462.5	nm
F	462.5	465	
G	465	467.5	
H	467.5	470	

Characteristic Curves

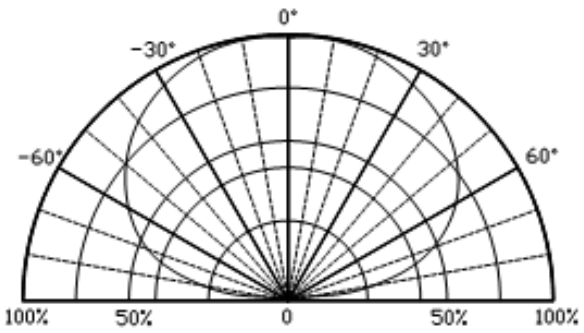
Forward Current vs. Forward Voltage



Relative Intensity vs. Wavelength

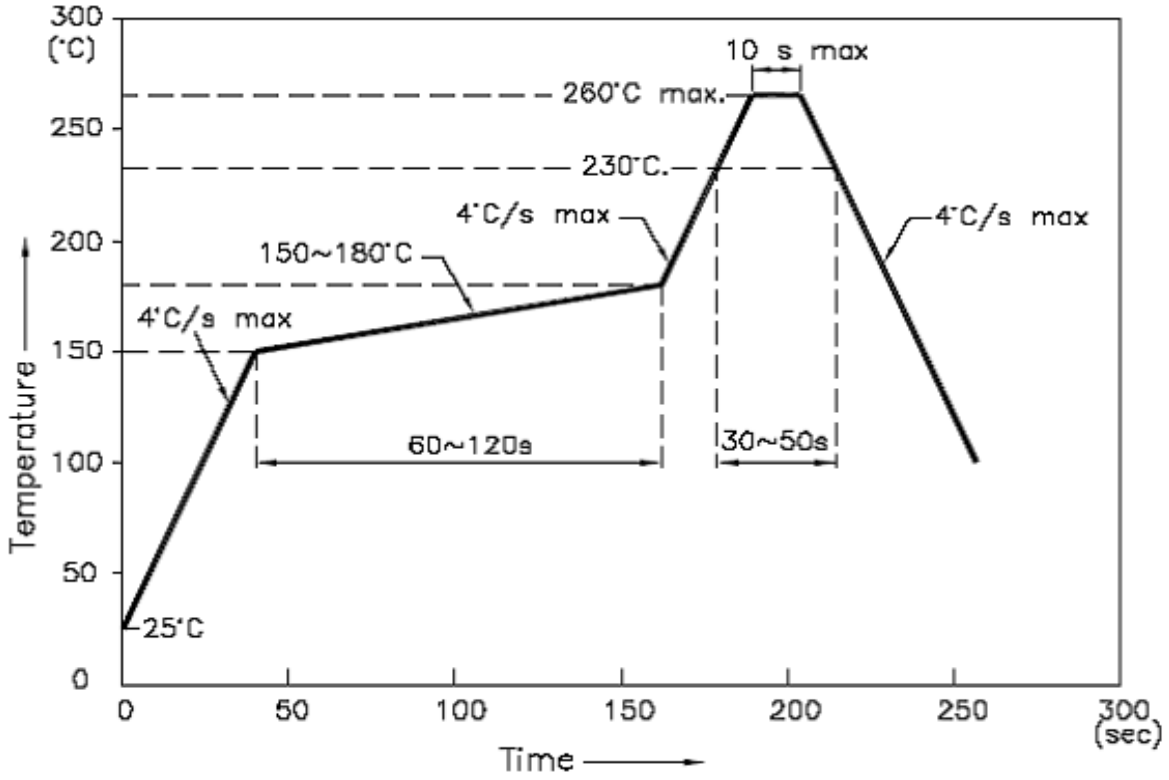


Directive Characteristics

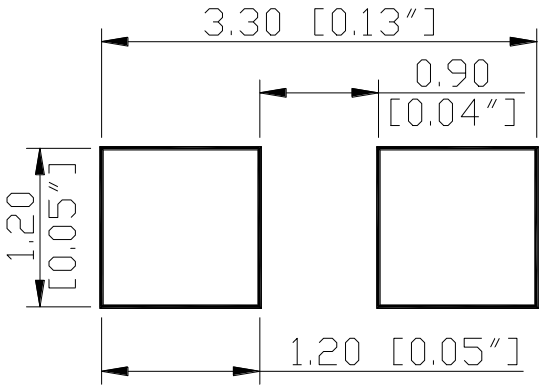


Solder Profile & Footprint

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



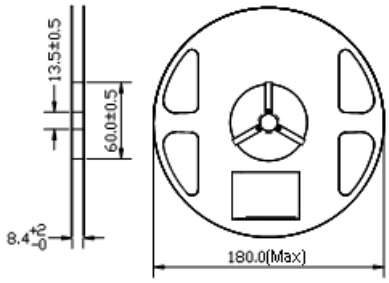
Recommended Pad Layout



Units: mm

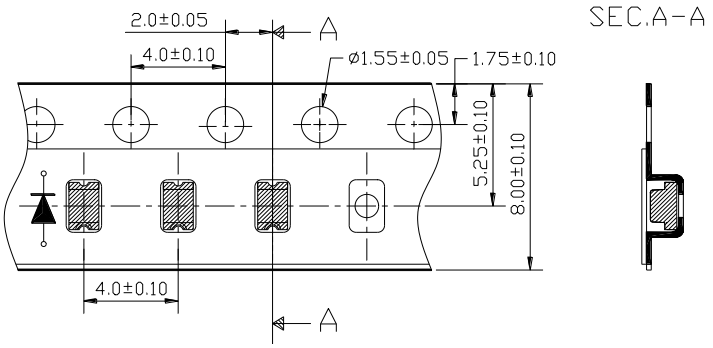
Packing

Reel Dimension:



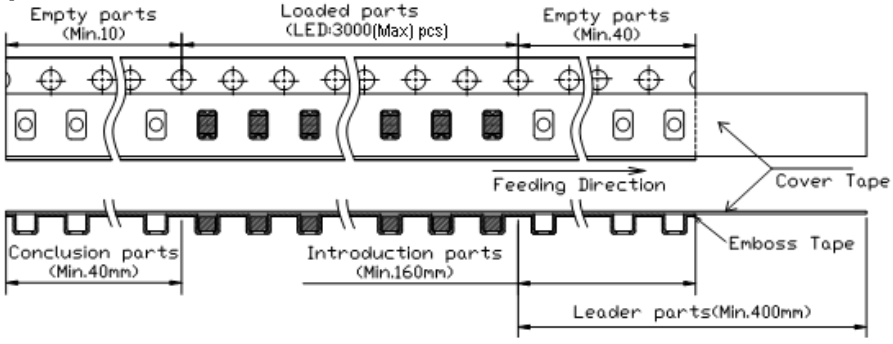
Unit: mm

Tape Dimension:

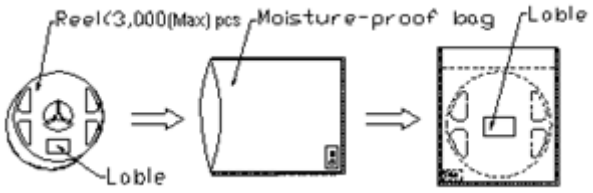


Unit: mm

Arrangement of Tape:



Packaging Specification:



Labeling

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP631-2IB	Iv=104mcd typ. / λ_D = 460nm to 470nm @ 20mA	3000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP631-2IB	V1.0	03/27/2024

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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.