QT-Brightek Chip LED Series

SMD 0603 Blue LED

Part No.: QBLP601-2IB

2IB: Blue 460 to 470nm

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Introduction

Feature:

- Water clear lens
- Color: Blue
- Package in tape and reel
- Ultra bright 0603 LED package
- InGaN technology
- Viewing angle: 140 deg typ.
- Height profile: 0.6mm

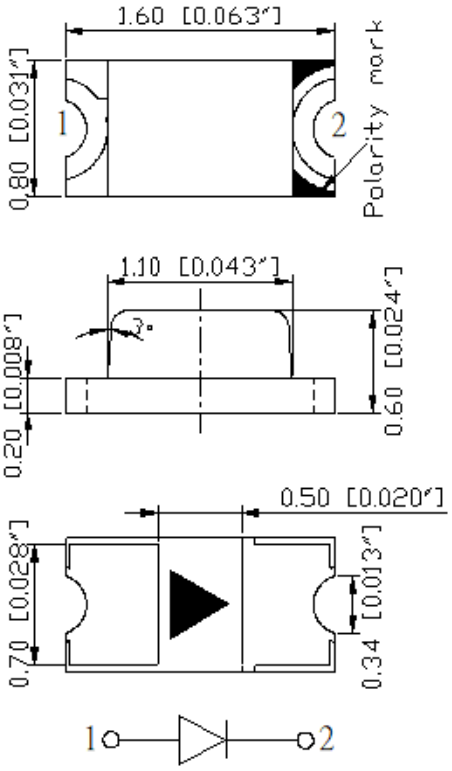
Application:

- 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.
QBLP601-2IB	Blue	20	2.9	3.4	460	465	470	460	50	98

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	100	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/10 @ 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	

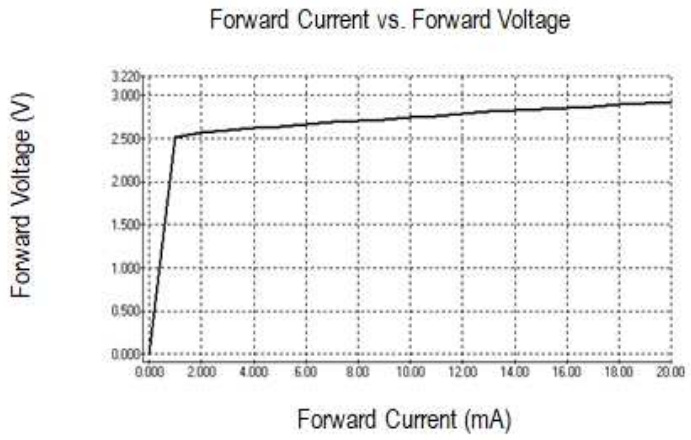
Luminous Intensity I_V @ I_F=20mA

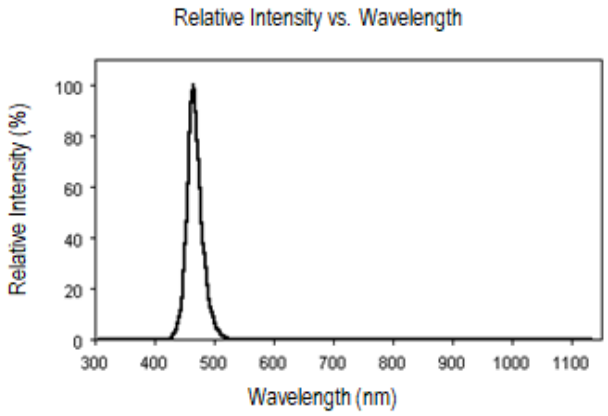
Bin	Min.	Max.	Unit
G	50	63	mcd
H	63	80	
I	80	100	
J	100	125	
K	125	160	

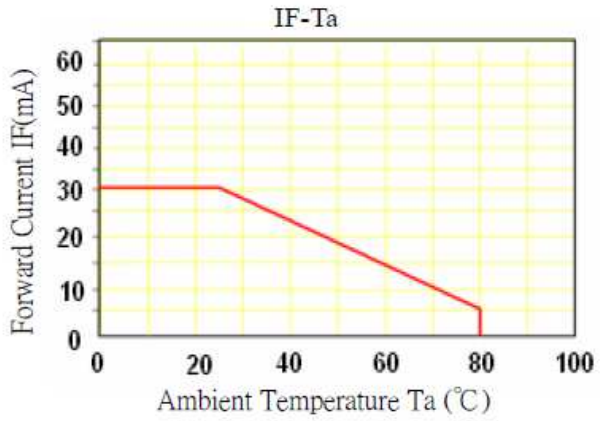
Dominant Wavelength λ_D @ I_F=20mA

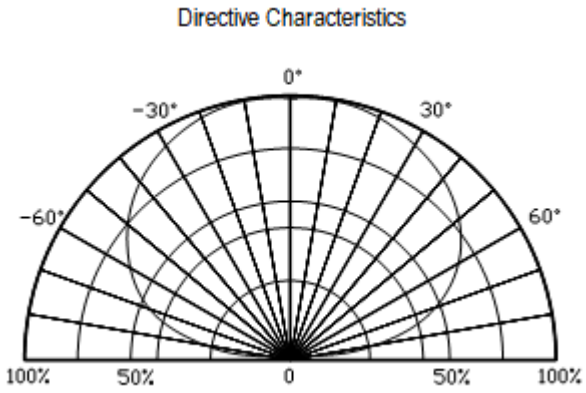
Bin	Min.	Max.	Unit
E	460	462.5	nm
F	462.5	465	
G	465	467.5	
H	467.5	470	

Characteristic Curves



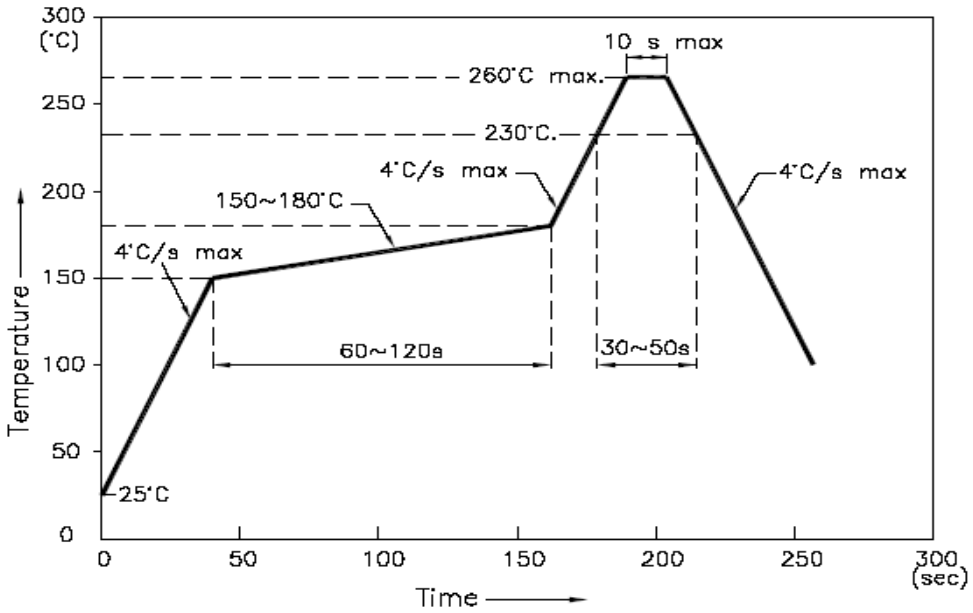




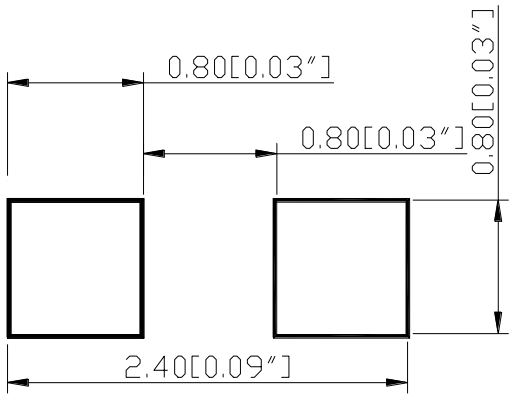


Solder Profile & Footprint

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



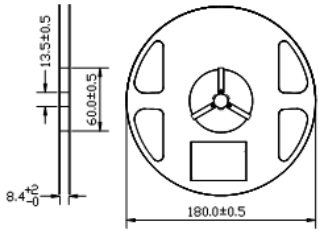
Recommended Pad Layout



Units: mm

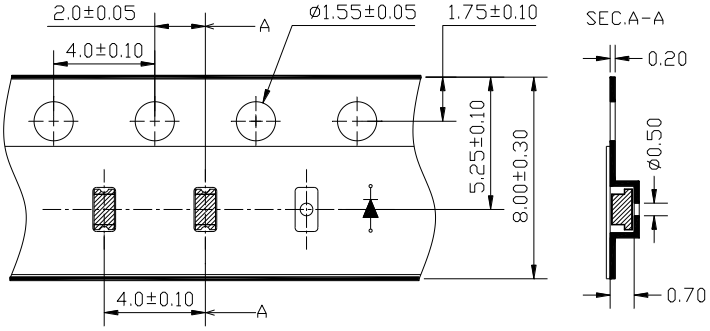
Packing

Reel Dimension:



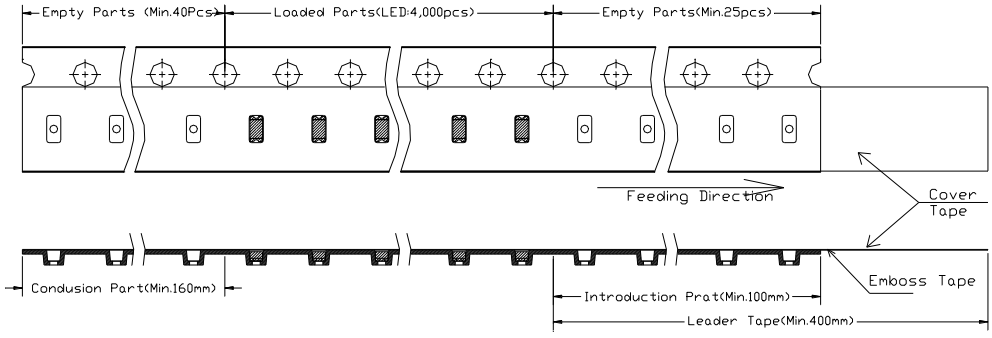
Unit: mm

Tape Dimension:

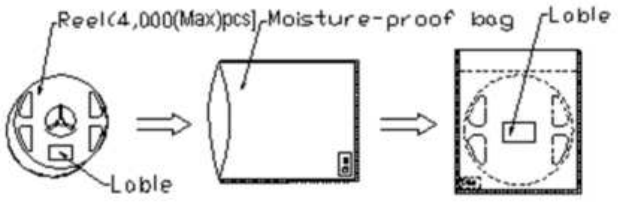


Unit: mm

Arrangement of Tape:



Packaging Specifications:



Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP601-2IB	Iv=98mcd typ. @ I_F=20mA / Color=460 to 470nm	4,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP601-2IB	V1.0	12/22/2021
Fix a typo Electrical / Optical Characteristic	V1.1	04/05/2022
Update format and typical mcd, add peak wavelength	V1.2	1/14/2025

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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.