

QT-Brightek Chip LED Series

SMD 0603 Blue LED

Part No.: QBLP601-IB-2



Table of Contents:

Introduction 3
Electrical / Optical Characteristic (Ta=25 °C) 4
Absolute Maximum Rating 4
Solder Profile & Footprint 6
Packing 7
Ordering Information 8
Revision History 8
Disclaimer 8

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:

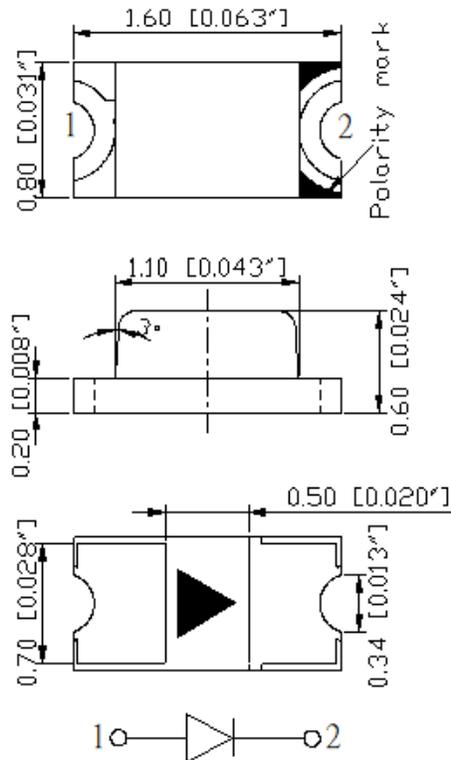
- Status indication
- Back lighting application

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-IB-2	Blue	20	3.1	3.7	465	470	475	468	52	104

Absolute Maximum Rating

Chip 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	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
f	2.8	3.1	V
g	3.1	3.4	
h	3.1	3.7	

Luminous Intensity I_V @ I_F=20mA

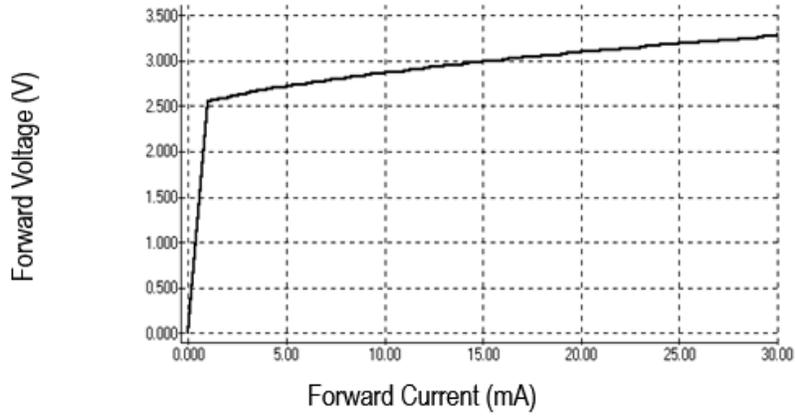
Bin	Min.	Max.	Unit
3G	52	66	mcd
3H	66	84	
3I	84	105	
3J	105	131	
3K	131	168	

Dominant Wavelength λ_D @ I_F=20mA

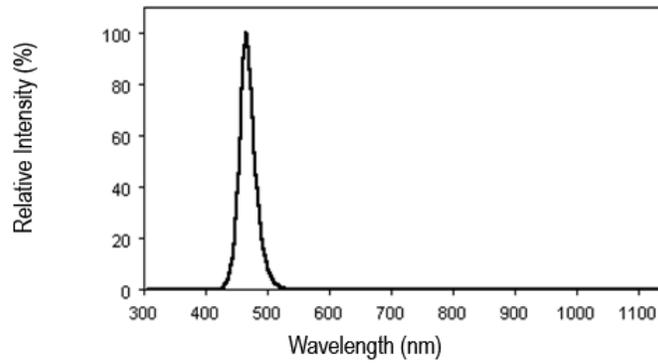
Bin	Min.	Max.	Unit
G	465	467.5	nm
H	467.5	470	
I	470	472.5	
J	472.5	475	

Characteristic Curves

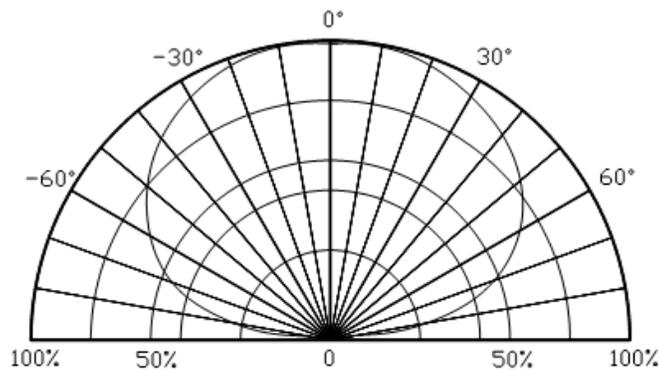
Forward Current vs. Forward Voltage



Relative Intensity vs. Wavelength

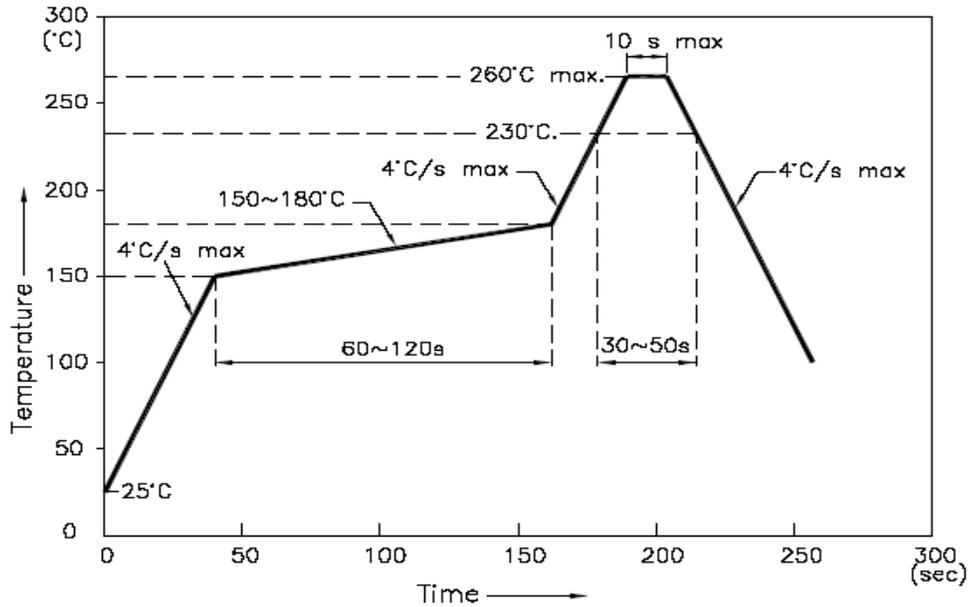


Directive Characteristics

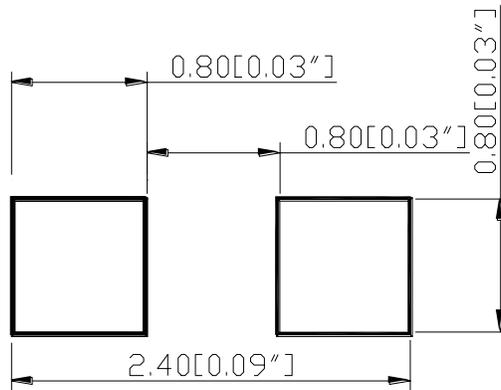


Solder Profile & Footprint

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



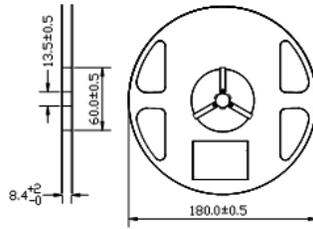
Recommended Pad Layout



Units: mm

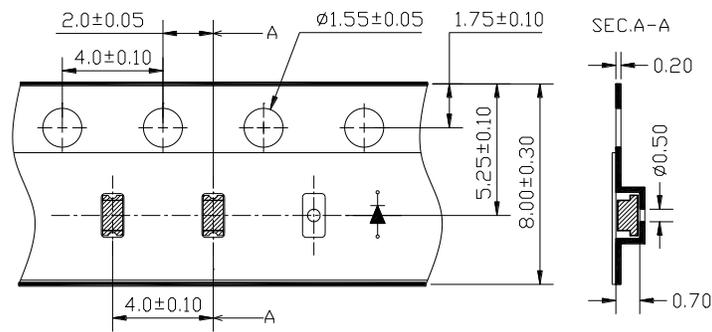
Packing

Reel Dimension:



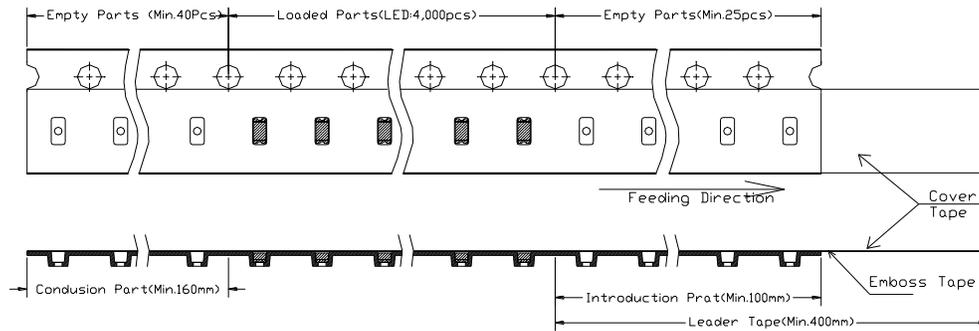
Unit: mm

Tape Dimension:

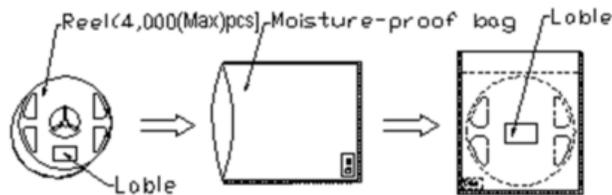


Unit: mm

Arrangement of Tape:



Packaging Specifications:





Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP601-IB-2	Iv=104mcd typ. @ I _F =20mA / Color=465 to 475nm	4,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP601-IB-2	V1.0	10/29/2025

Disclaimer

QT-BRIGHTTEK reserves the right to make changes without further notice to any products herein to improve reliability, function or design. QT-BRIGHTTEK does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others.

Life Support Policy

QT-BRIGHTTEK's products are not authorized for use as critical components in life support devices or systems without the express written approval of QT-BRIGHTTEK. As used herein:

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.

Product: QBLP601-IB-2	Date: October 29, 2025	Page 8 of 8
	Version# 1.0	