

QT-Brightek Chip LED Series

SMD 0603 Blue LED

Part No.: QBLP601-IB5

5: 5mA

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	9
Disclaimer	9

Introduction

Feature:

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

Description:

These ultra bright 0603 LEDs have a height profile of 0.60mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

Application:

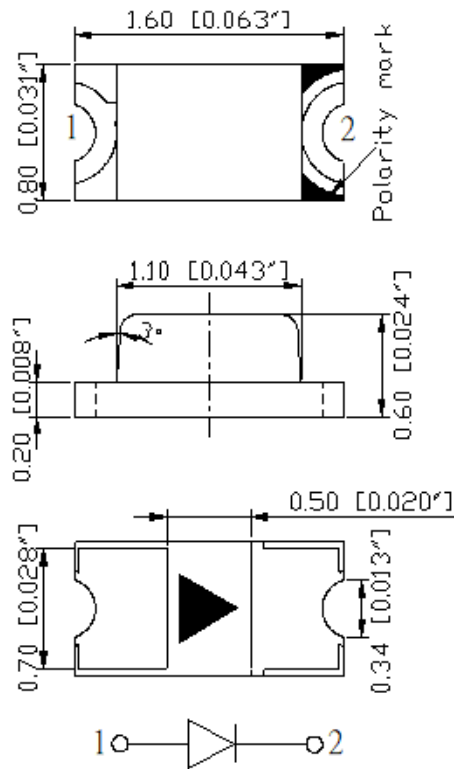
- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- 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)			I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP601-IB5	Blue	5	2.9	3.1	465	470	475	10	16

Absolute Maximum Rating

Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SO L} (°C)**
InGaN	93	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=5mA

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

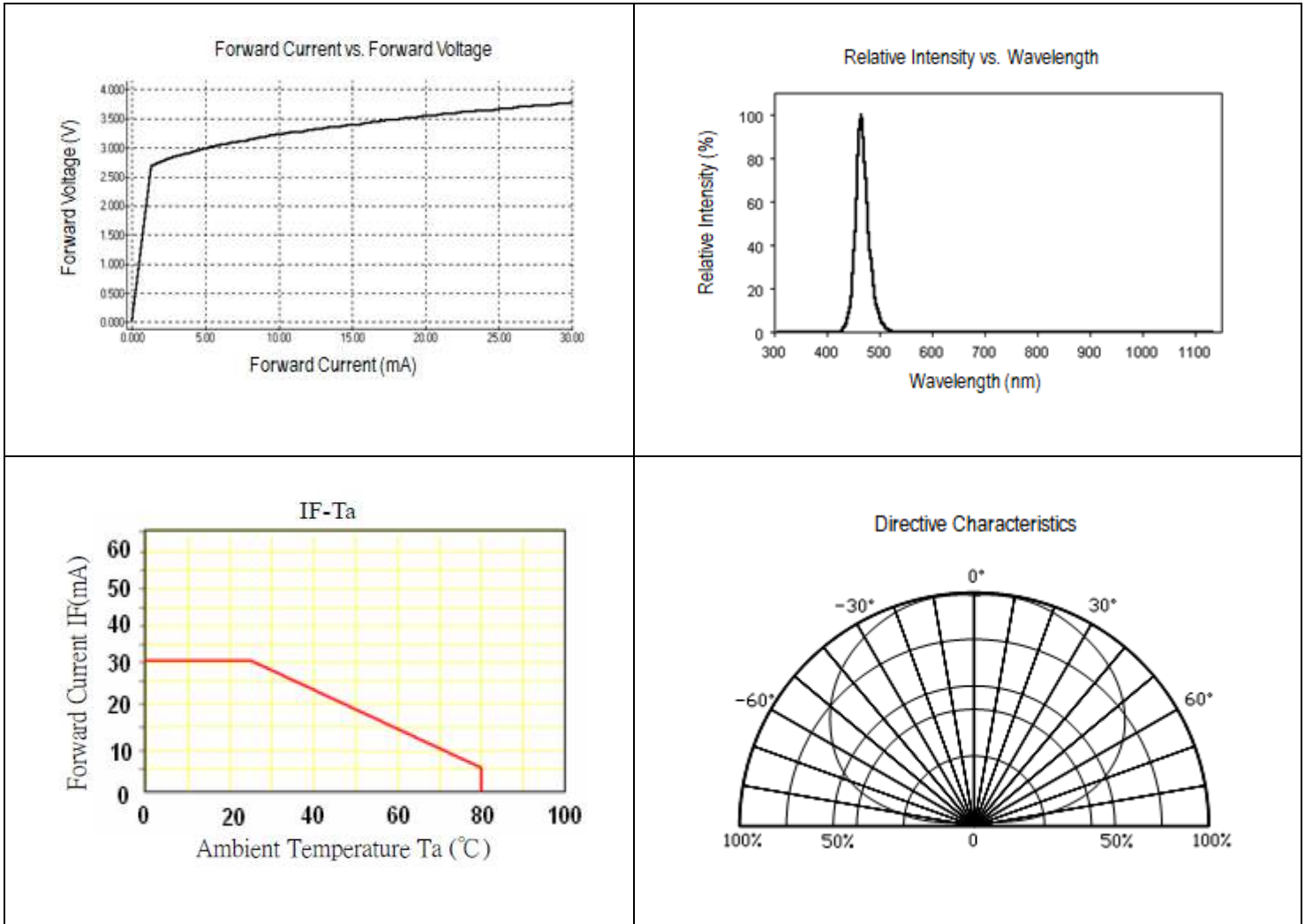
Luminous Intensity I_V @ I_F=5mA

Bin	Min.	Max.	Unit
A1	10	14	mcd
A2	14	19	
B1	19	24	
B2	24	31	
C	31	39	

Dominant Wavelength λ_D @ I_F=5mA

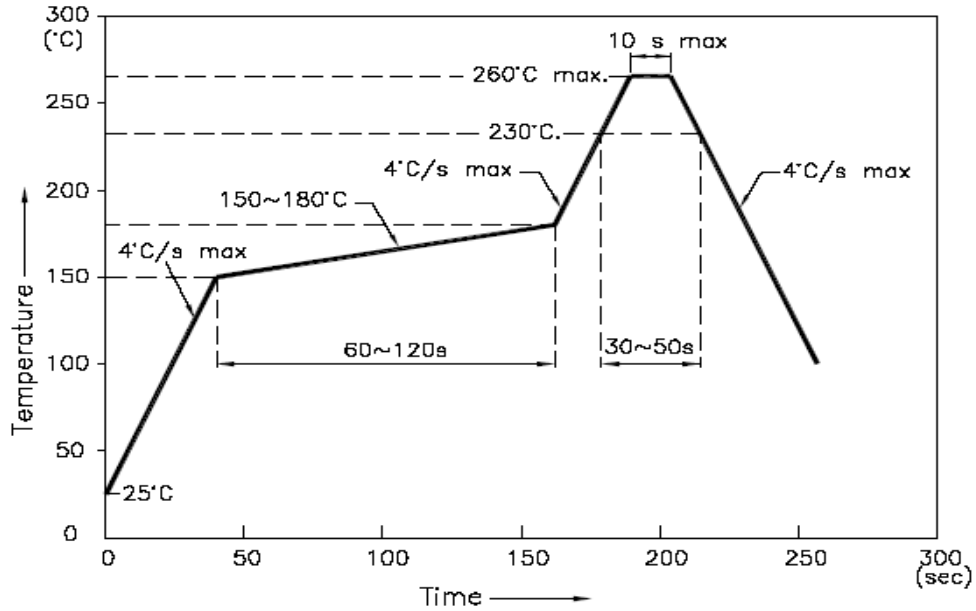
Bin	Min.	Max.	Unit
B1	465	470	nm
B2	470	475	

Characteristic Curves

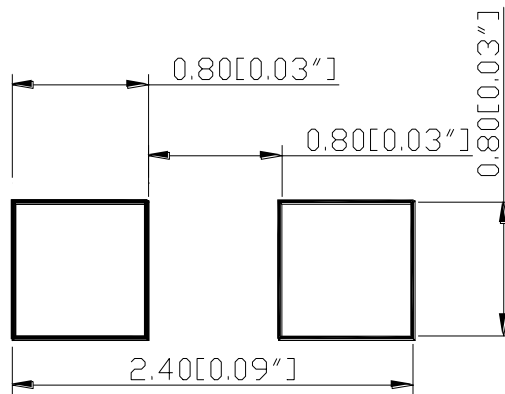


Solder Profile & Footprint

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



Recommended Pad Layout

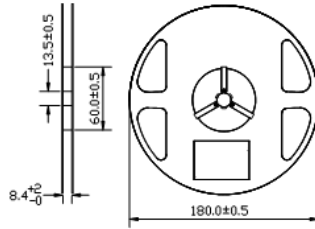


Units: mm

Tolerance: ±0.1mm

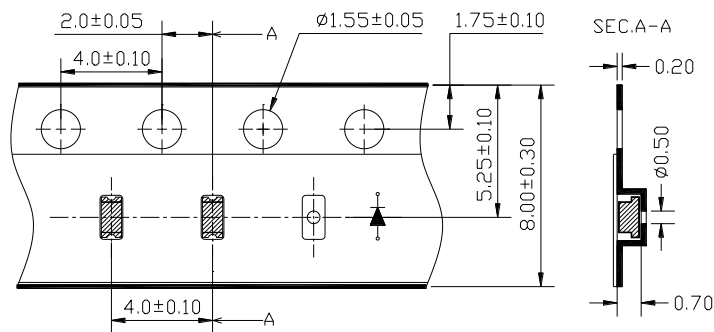
Packing

Reel Dimension:



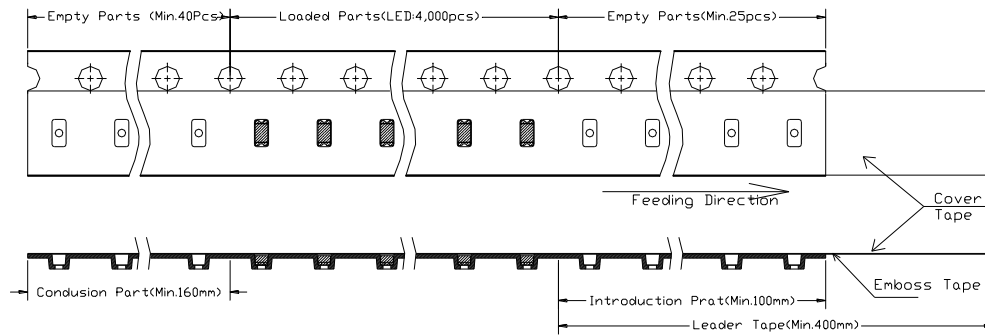
Unit: mm

Tape Dimension:

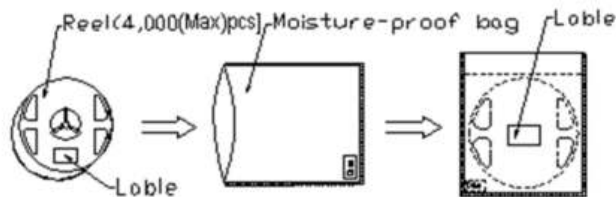


Unit: mm

Arrangement of Tape:



Packaging Specifications:



Product: QBLP601-IB5	Date: August 19, 2021	Page 7 of 9
	Version# 1.0	



Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP601-IB5	QBLP601-IB5	Iv=16mcd typ. @ I _F =5mA / Color=465 to 475nm	4,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP601-IB5	V1.0	08/19/2021

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.