

QT-Brightek Chip LED Series

SMD 0603 Green LED

Part No.: QBLP601-O5

5: 5mA

Table of Contents:

Introduction3

Electrical / Optical Characteristic (Ta=25 °C)4

Absolute Maximum Rating4

Characteristic Curves.....5

Solder Profile & Footprint.....6

Packing7

Ordering Information8

Revision History9

Disclaimer9

Introduction

Feature:

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

Application:

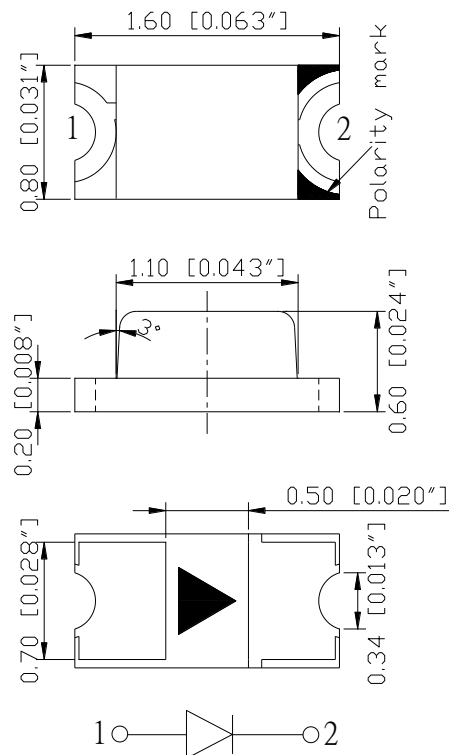
- Status indication
- Back lighting application

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-O5	Orange	5	2.0	2.3	600	605	610	610	16	35

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)**
AlInGaP	69	30	100	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
A	1.7	2.0	V
B	2.0	2.3	

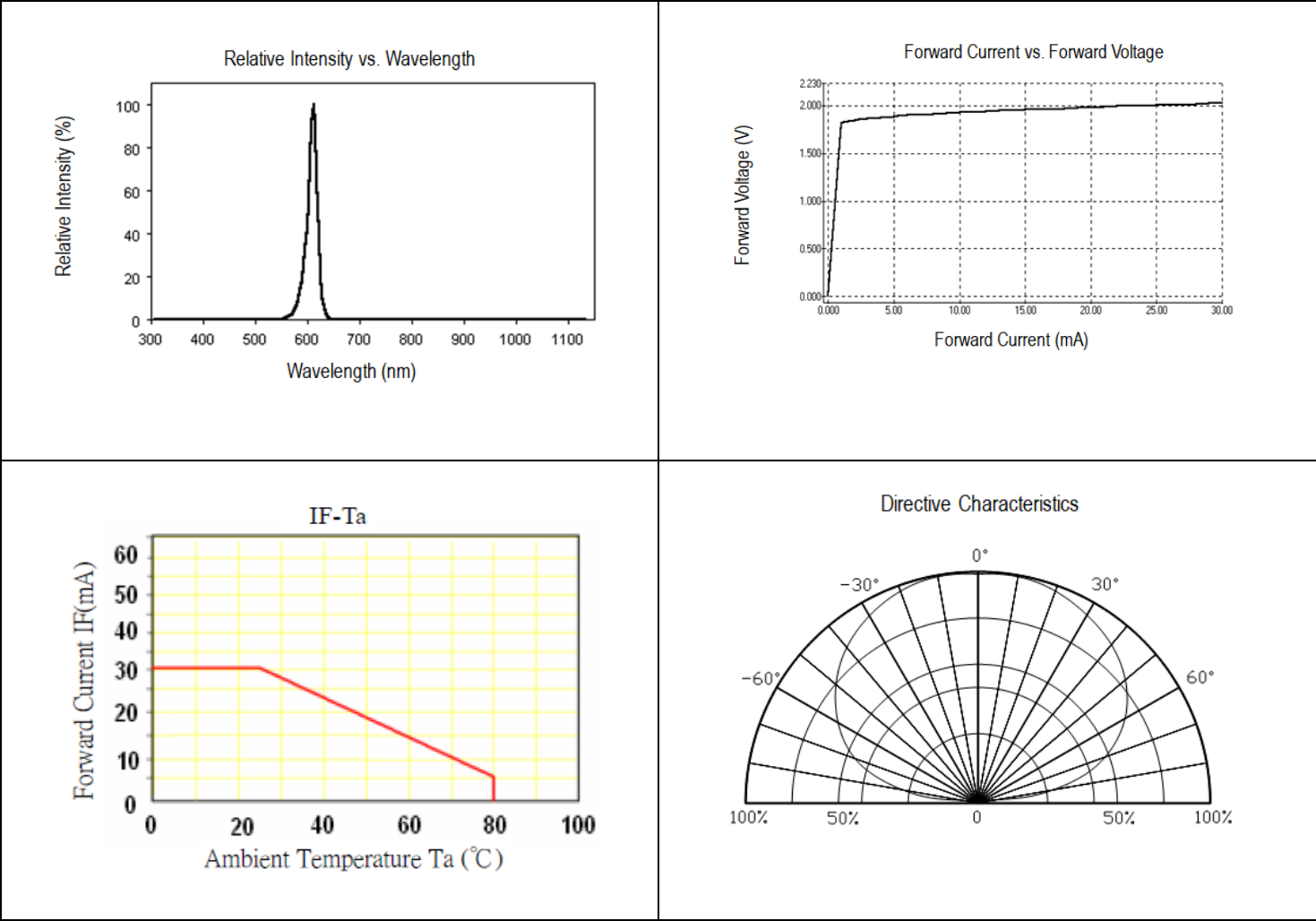
Luminous Intensity I_V @ I_F=5mA

Bin	Min.	Max.	Unit
B	16	20	mcd
C	20	25	
D	25	32	
E	32	40	
F	40	50	

Dominant Wavelength λ_D @ I_F=5mA

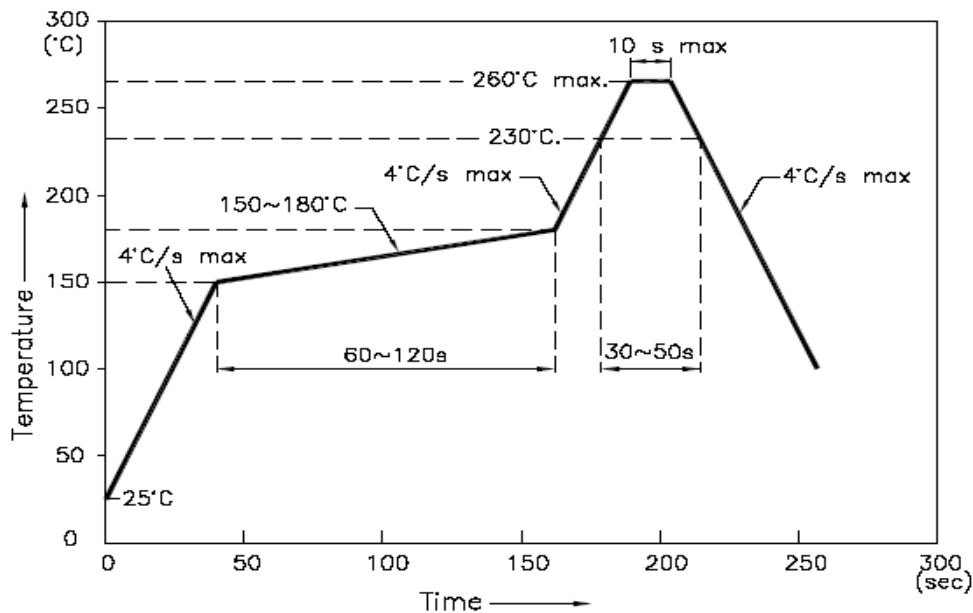
Bin	Min.	Max.	Unit
p	600	605	nm
q	605	610	

Characteristic Curves

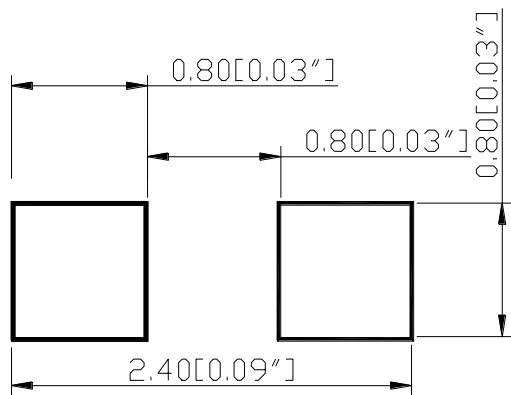


Solder Profile & Footprint

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



Recommended Pad Layout

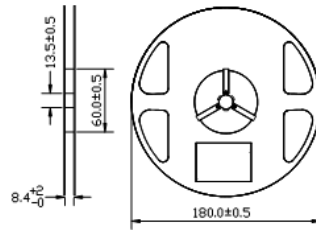


Units: mm

Tolerance: $\pm 0.1\text{mm}$

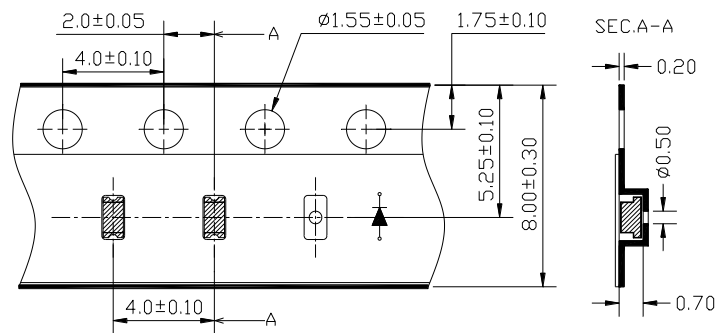
Packing

Reel Dimension:



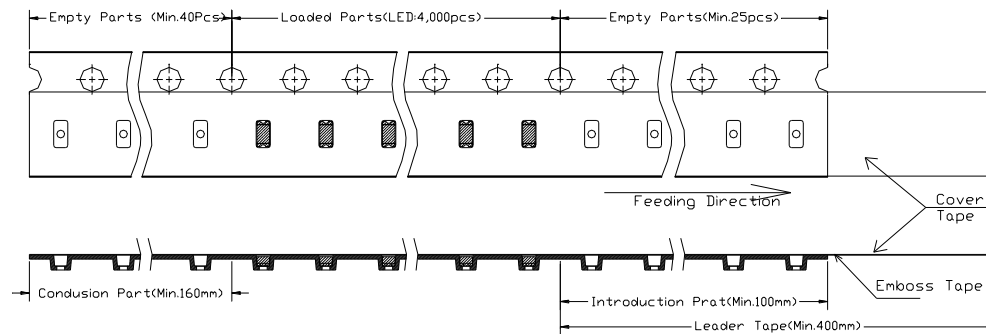
Unit: mm

Tape Dimension:

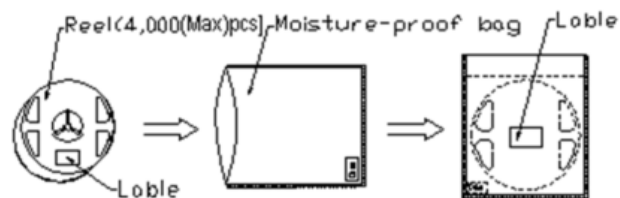


Unit: mm

Arrangement of Tape:



Packaging Specifications:





Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP601-O5	Iv=35mcd typ. @ I _F =5mA / Color=600 to 610nm	4,000 units

Product: QBLP601-O5	Date: January 27, 2025	Page 8 of 9
	Version# 1.1	



Revision History

Description:	Revision #	Revision Date
New Release of QBLP601-O5	V1.0	09/30/2021
Update typical Iv value, add peak wavelength	V1.1	01/27/2025

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.