

QT-Brightek Chip LED Series

SMD 0603 Red LED

Part No.: QBLP601-R5

5: 5mA

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Introduction

Feature:

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

Application:

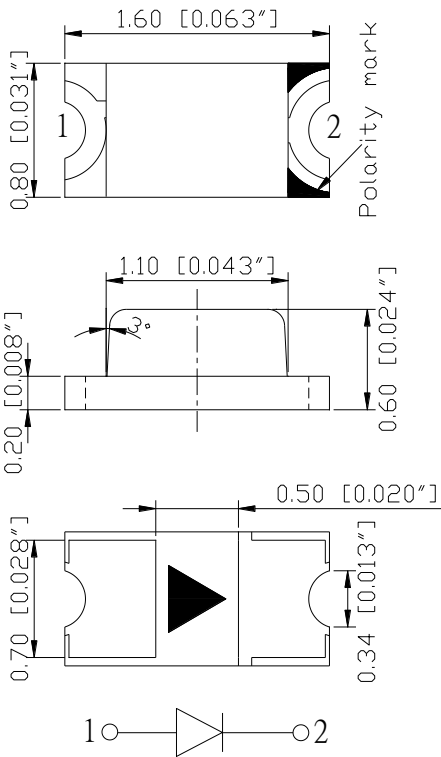
- Status indication
- Back lighting application

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-R5	Red	5	1.8	2.3	620	625	630	633	16	33

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	75	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=5mA

Bin	Min.	Max.	Unit
A	1.7	2.0	V
B	2.0	2.3	

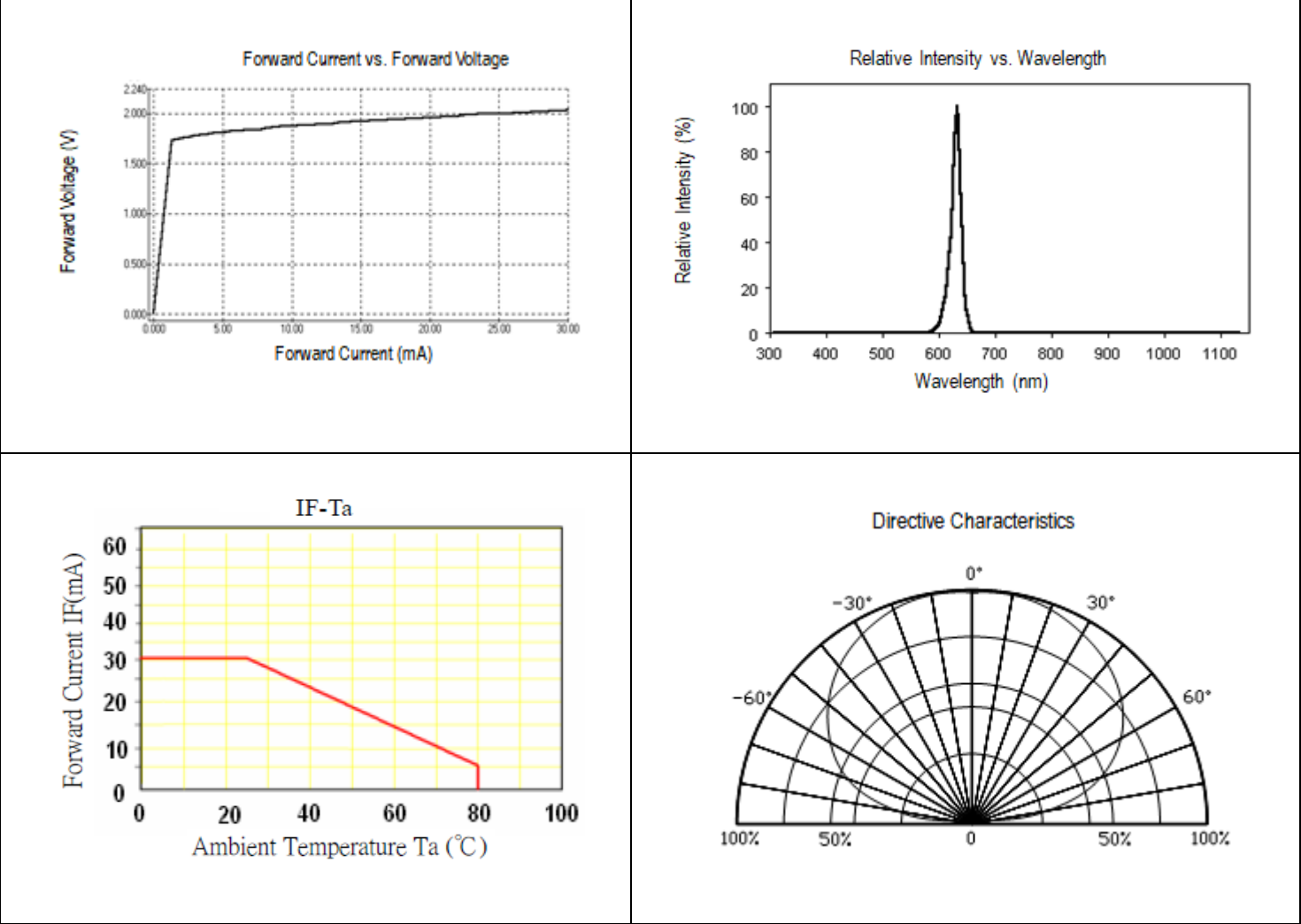
Luminous Intensity I_V @ I_F=5mA

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

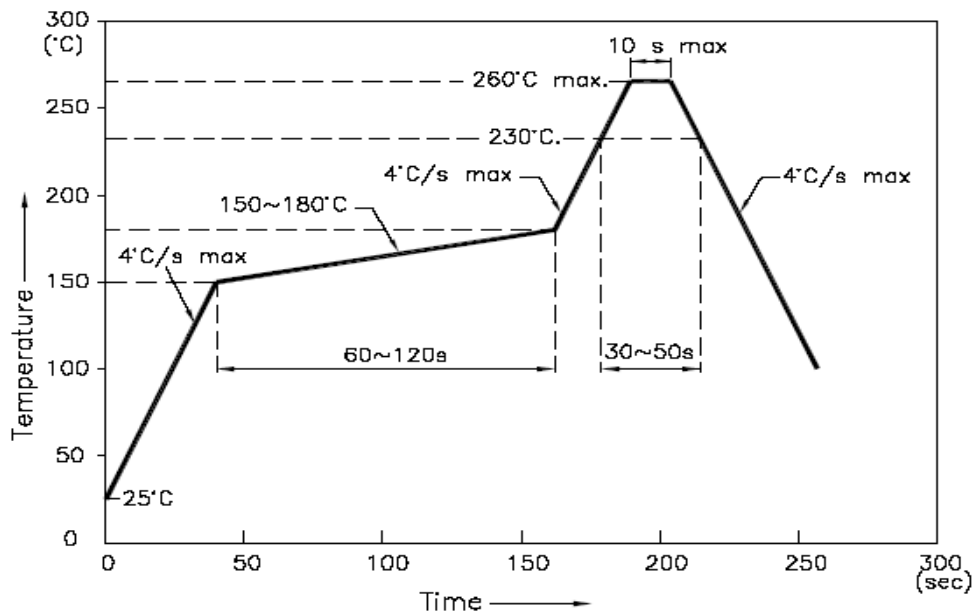
Bin	Min.	Max.	Unit
t	620	625	nm
u	625	630	

Characteristic Curves

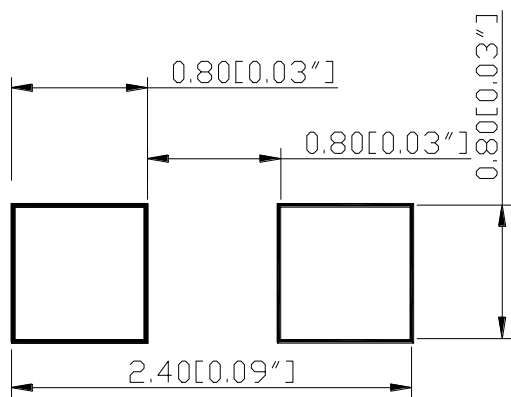


Solder Profile & Footprint

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



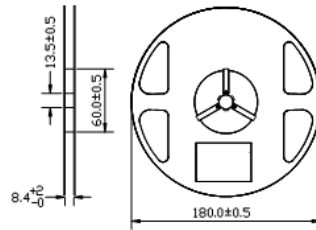
Recommended Pad Layout



Units: mm

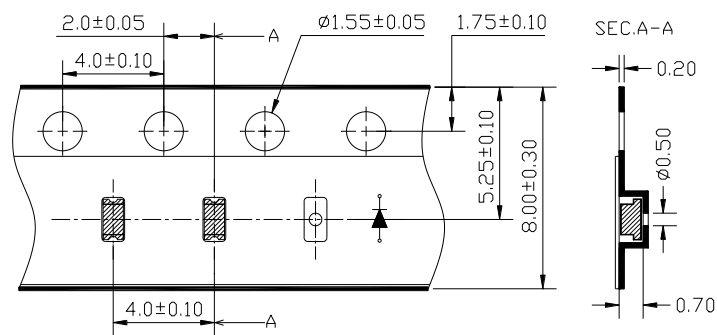
Packing

Reel Dimension:



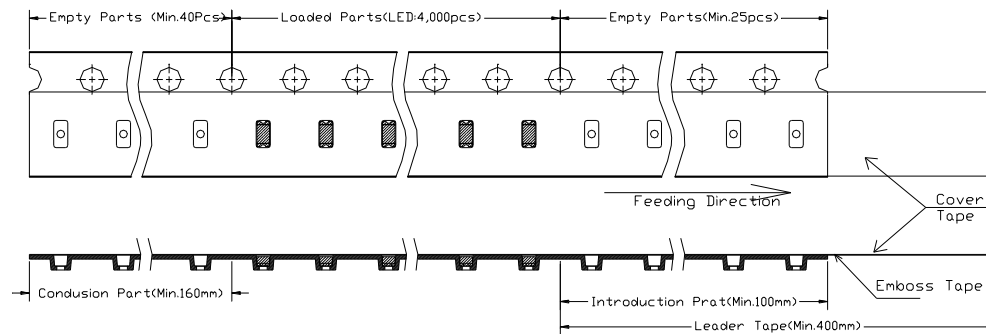
Unit: mm

Tape Dimension:

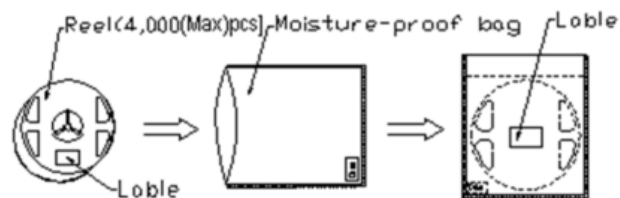


Unit: mm

Arrangement of Tape:



Packaging Specifications:





Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP601-R5	I _v =33mcd typ. @ I _F =5mA / Color=620 to 630nm	4,000 units

Product: QBLP601-R5	Date: January 26, 2025	Page 8 of 9
	Version# 1.1	



Revision History

Description:	Revision #	Revision Date
New Release of QBLP601-R5	V1.0	08/19/2021
Update typical Iv add peak wavelength	V1.1	01/26/2025

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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.