

QT-Brightek Chip LED Series

SMD 0603 Red LED

Part No.: QBLP601-R0-2943

**R0: 615 to 628nm (AlInGaP)
2943: Diffused Lens Version**

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Introduction

Feature:

- White diffused 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:

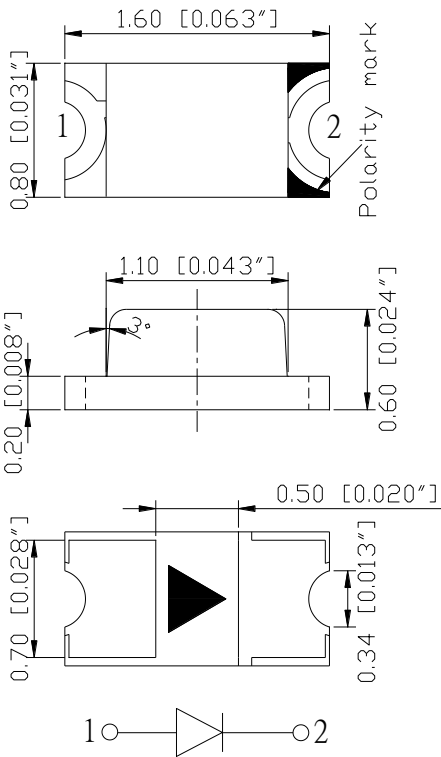
- Status indication
- Back lighting application

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-R0-2943	Red	20	2.0	2.5	615	622	628	636	63	120

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=20mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

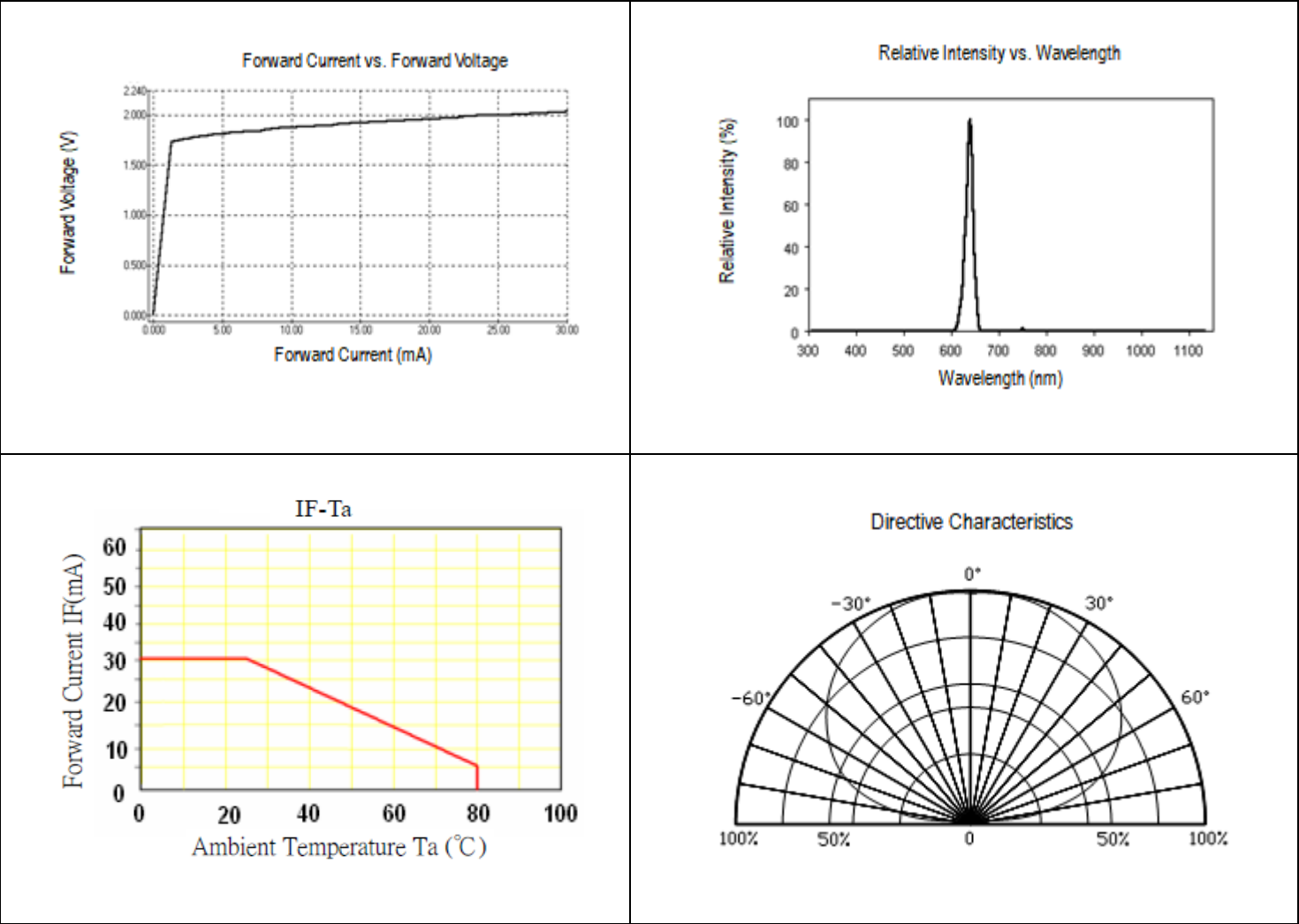
Luminous Intensity I_V @ I_F=20mA

Bin	Min.	Max.	Unit
H	63	80	mcd
I	80	100	
J	100	125	
K	125	160	
L	160	200	

Dominant Wavelength λ_D @ I_F=20mA

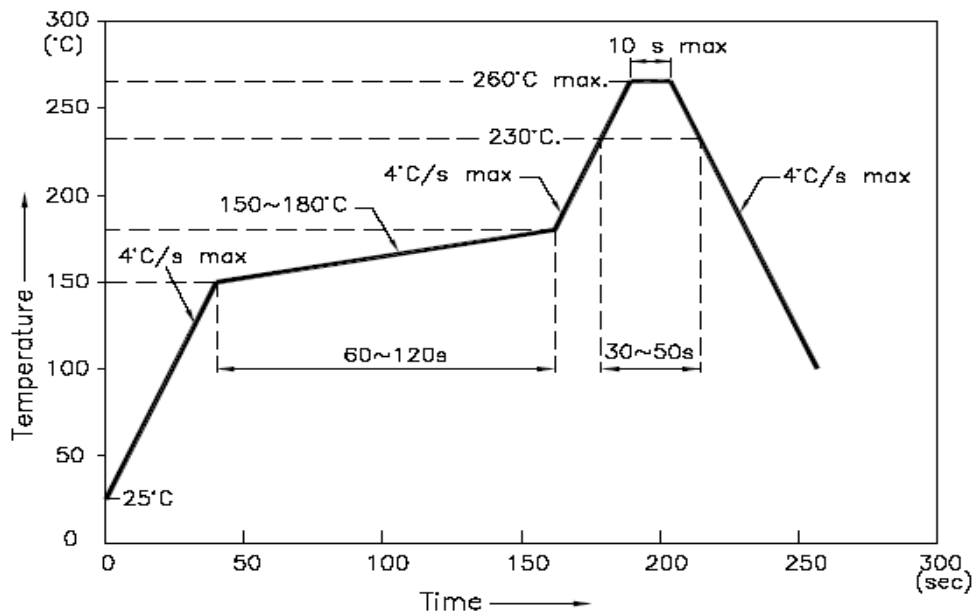
Bin	Min.	Max.	Unit
S	615	620	nm
T	620	625	
U	625	628	

Characteristic Curves

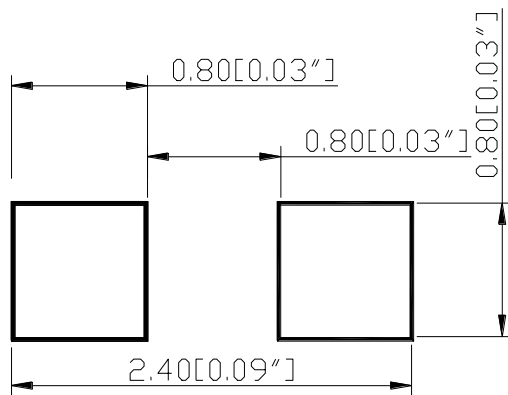


Solder Profile & Footprint

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



Recommended Pad Layout

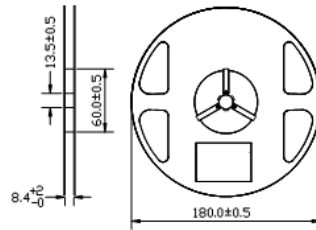


Units: mm

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

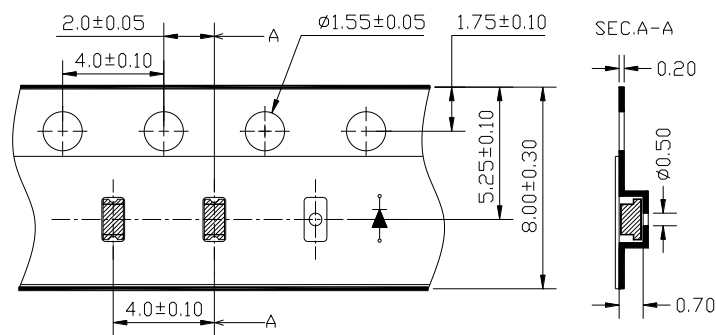
Packing

Reel Dimension:



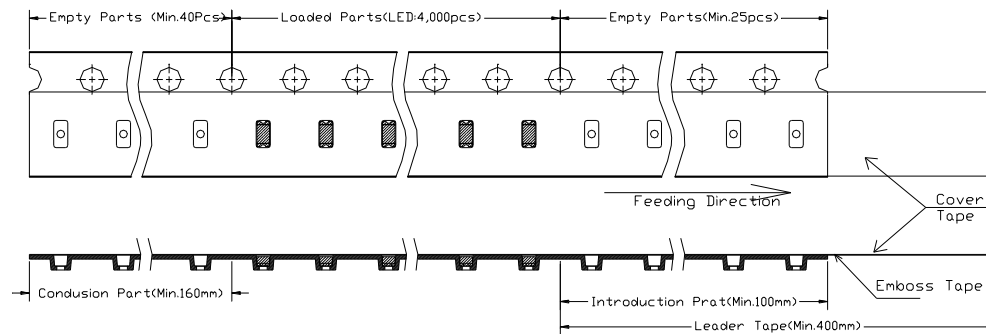
Unit: mm

Tape Dimension:

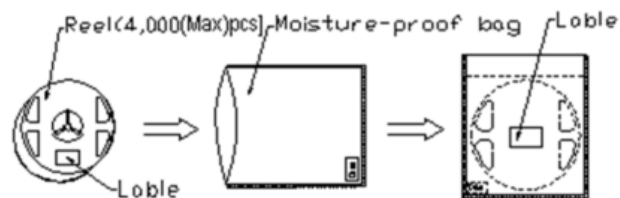


Unit: mm

Arrangement of Tape:



Packaging Specifications:





Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP601-R0-2943	Iv=120mcd typ. @ I _F =20mA / Color=615 to 628nm	4,000 units

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	Version# 1.1	



Revision History

Description:	Revision #	Revision Date
New Release of QBLP601-R0-2943	V1.0	04/25/2021
Update typical Iv value and peak wavelength value	V1.1	01/27/2025

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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.