

QT-Brightek PLCC Series

PLCC-2 Red LED

Part No.: QBLP670-S3

S3: $\lambda_P=660\text{nm}$, $\lambda_D=640\text{nm}$

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Introduction

Feature:

- Clear lens
- Package in tape and reel
- Ultra bright reflector type PLCC2 LED
- AllnGaP technology
- Viewing Angle: 120 deg typ.

Description:

These ultra bright reflector type PLCC2 LEDs have a height profile of 1.90mm. Combination of high brightness output and robust package, these LEDs are ideal for architecture lighting, status indication, and industrial equipment lighting applications.

Application:

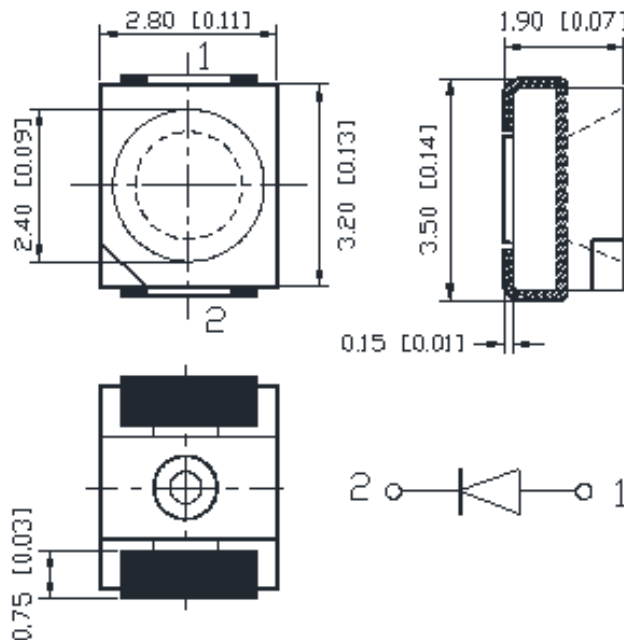
- Status indication
- Industrial equipment light
- Sensing
- Medical

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.2mm

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.	Typ.	Min.	Typ.	Max.	Min.	Typ.
QBLP670-S3	Red	20	2.0	2.5	640	650	660	670	25	50

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)**
AllnGaP	75	30	125	5	-40 ~ +85	-40 ~ +100	260

*Duty 1/8 @ 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

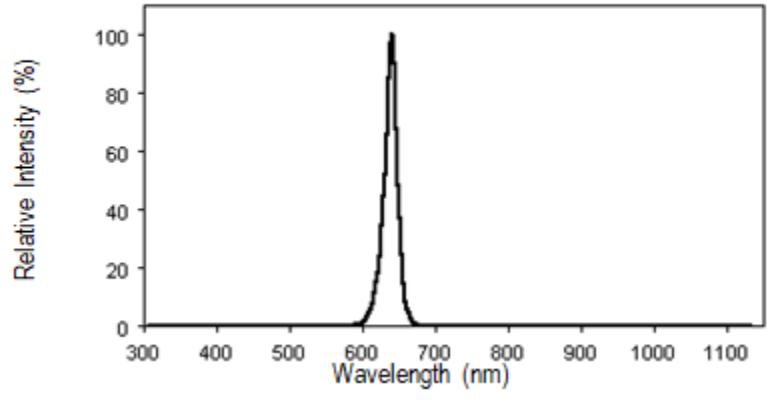
Bin	Min.	Max.	Unit
D	25	32	mcd
E	32	40	
F	40	50	
G	50	63	
H	63	80	

Peak Wavelength λ_P @ I_F=20mA

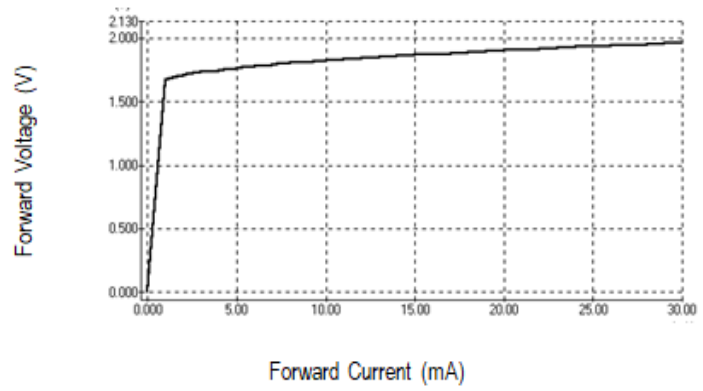
Bin	Min.	Max.	Unit
X	650	660	nm
Y	660	670	

Characteristic Curves

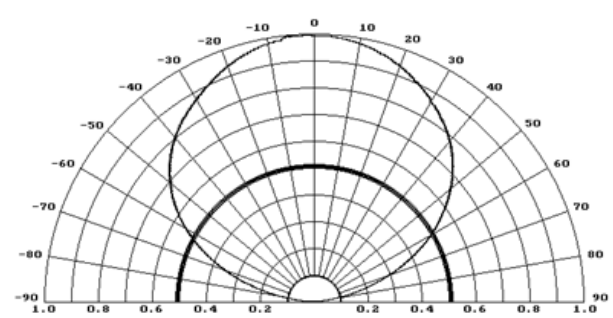
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage

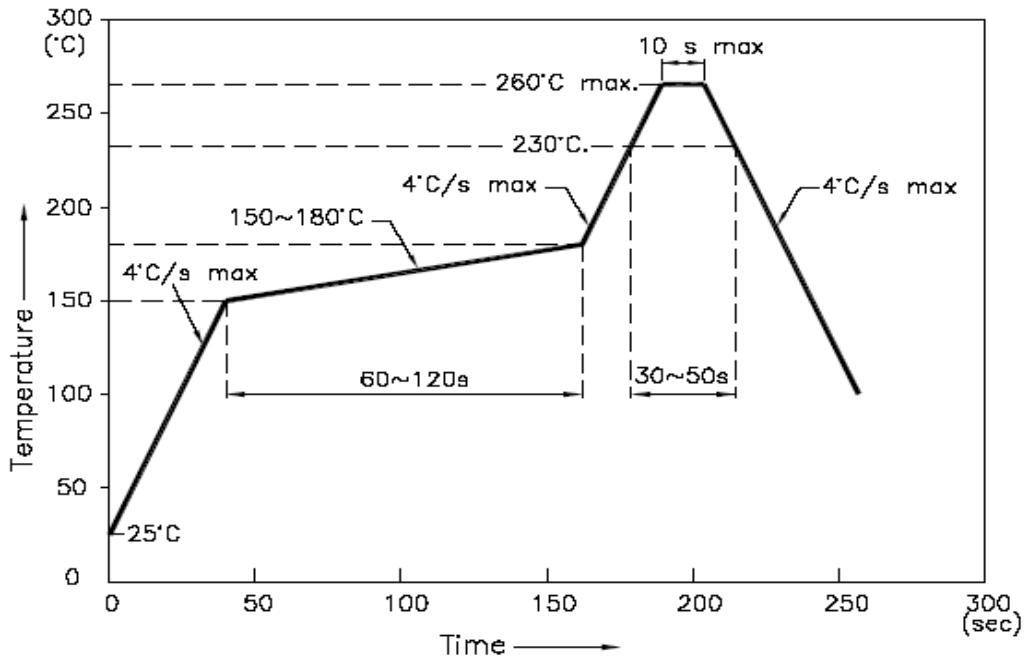


Directive Characteristics

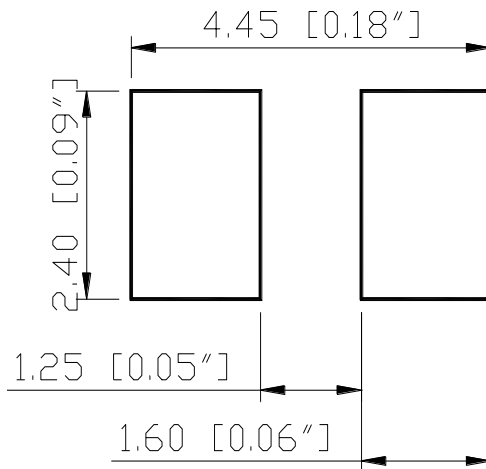


Solder Profile & Footprint

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



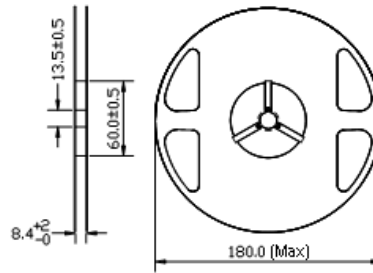
Recommended Pad Layout



Units: mm

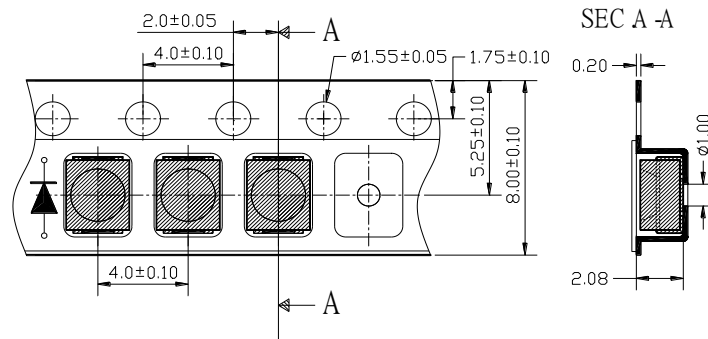
Packing

Reel Dimension:



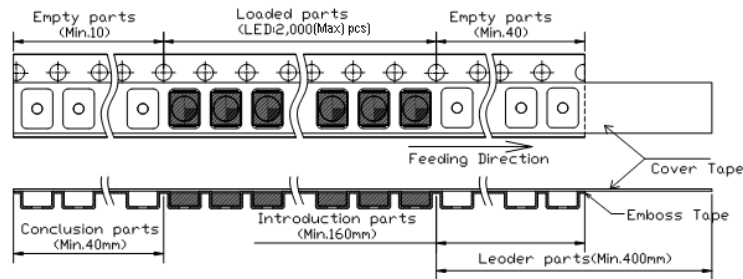
Unit: mm

Tape Dimension:

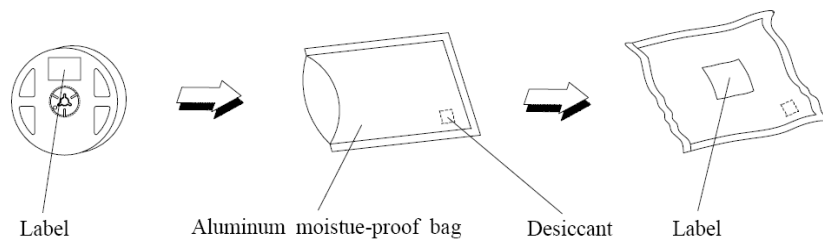


Unit: mm

Arrangement of Tape:



Packaging Specifications:





Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP670-S3	Iv=50mcd typ. @ I _F =20mA, λ _P =660nm typ., λ _d =640nm typ	2,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP670-S3	V1.0	11/01/2023

Disclaimer

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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.