

QT-Brightek PLCC-4 Series

PLCC-4 Single Color LED

Part No.: QBLP677B-RD-2897

B: Common Cathode

D: 50mA

2897: High Bright



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Introduction

Feature:

- Water clear lens
- Common cathode
- Beam angle: 120 deg typ.
- Height profile: 1.85mm

Application:

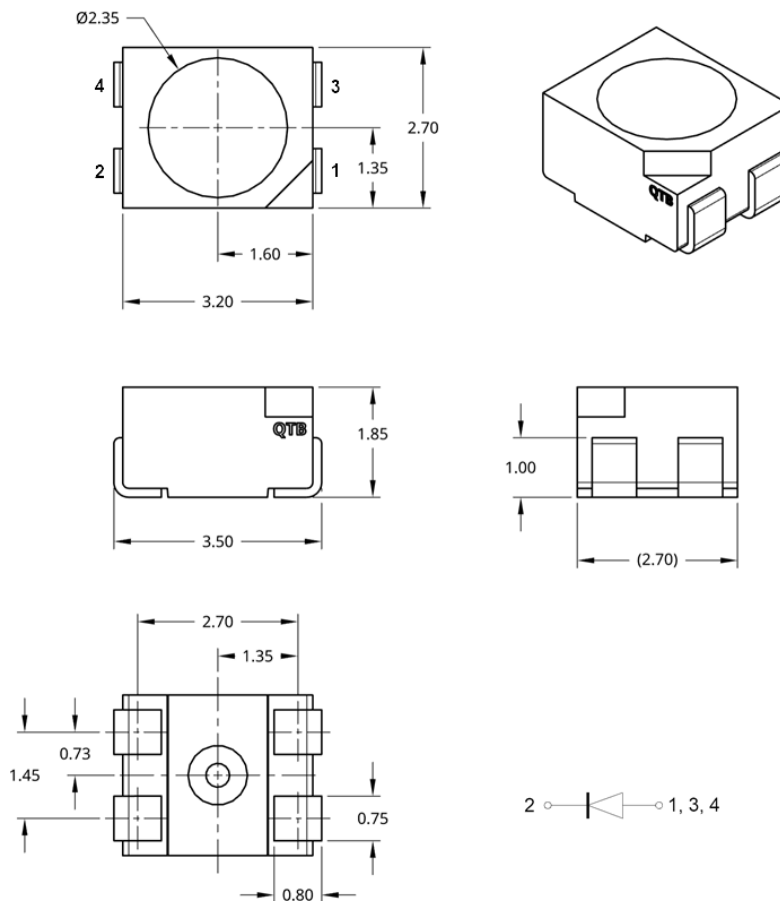
- Status indication
- Industrial equipment backlighting
- Architecture lighting

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.	Min.	Typ.	Max.	Typ.	Min.	Typ.	Max.
QBLP677B-RD-2897	Red	50	2.1	2.9	620	625	630	630	2750	4200	6875

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	203	70	150	5	-40 to +85	-40 to +90	260

*Duty 1/10 @ 1kHz

**IR Reflow for no more than 10 sec @ 260 °C

Forward Voltage V_F for @ I_F=50mA

Bin	Min.	Max.	Unit
1	2.0	2.3	V
2	2.3	2.6	
3	2.6	2.9	

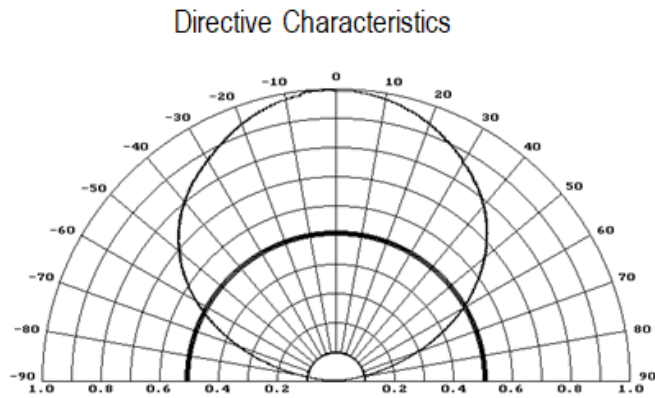
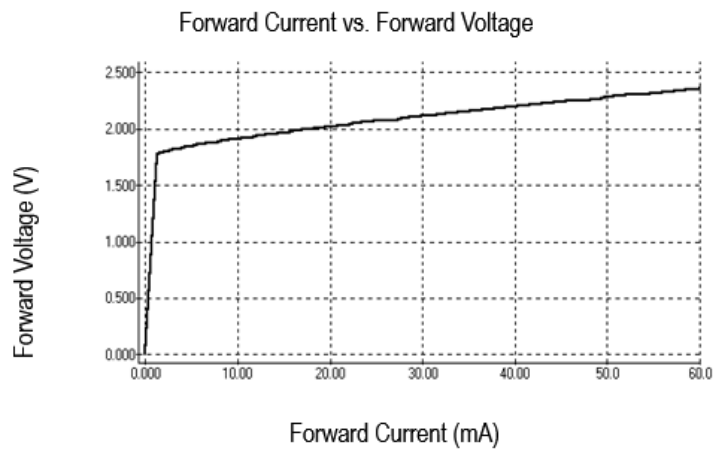
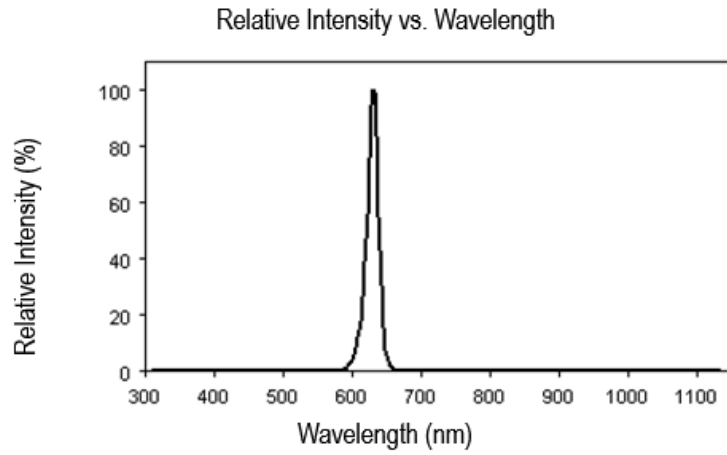
Luminous Intensity @ I_F=50mA

Bin	Min.	Max.	Unit
2V	2750	3437	mcd
2W	3437	4296	
2X	4296	5500	
2Y	5500	6875	

Dominant Wavelength λ_D @ I_F=50mA

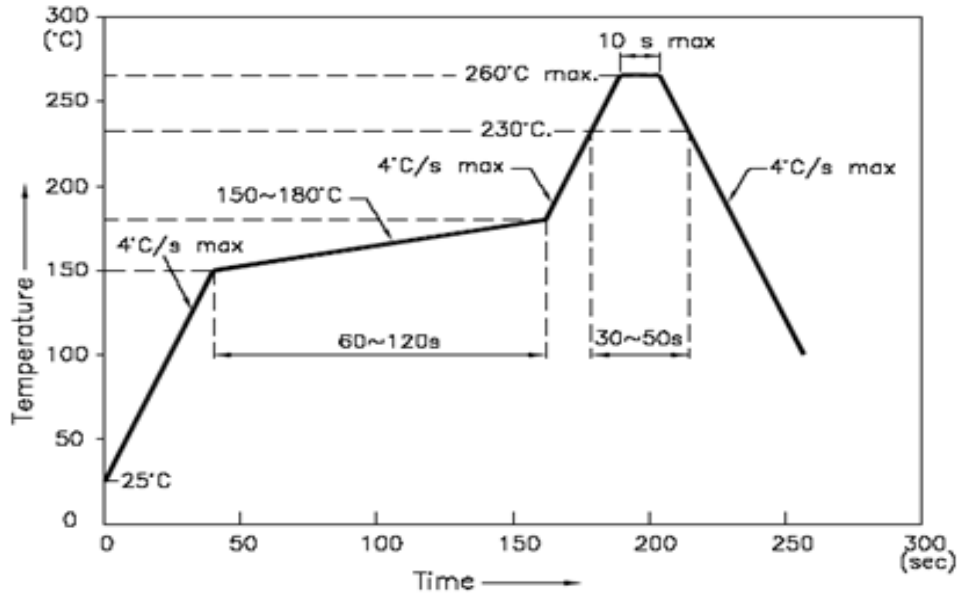
Bin	Min.	Max.	Unit
t	620	625	nm
u	625	630	

Characteristic Curves

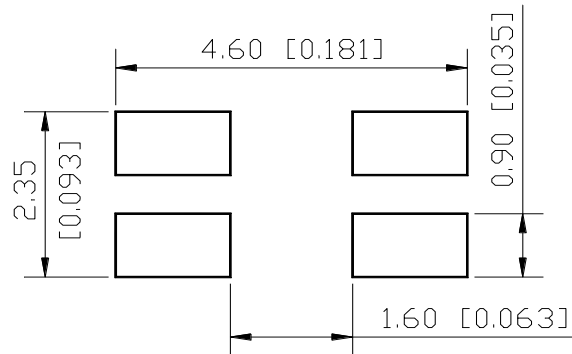


Solder Profile & Footprint

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



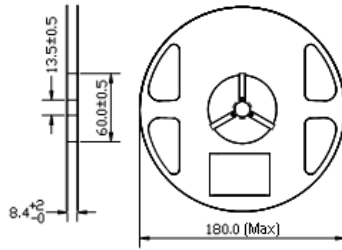
Recommended Pad Layout



Units: mm

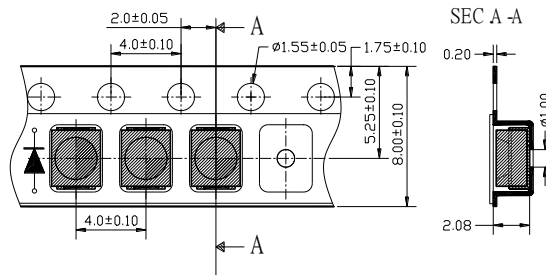
Packing

Reel Dimension:



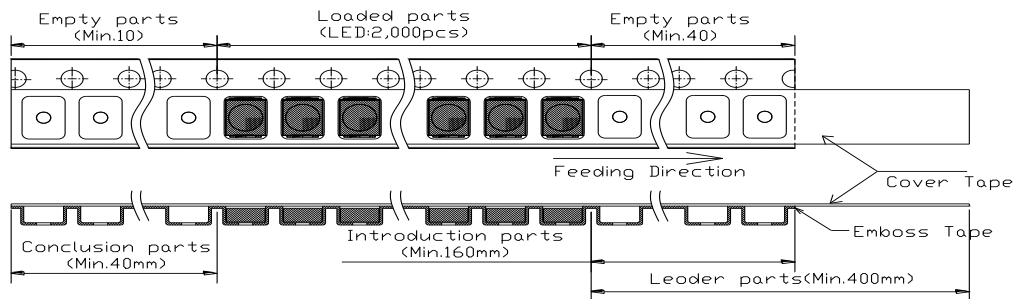
Unit: mm

Tape Dimension:



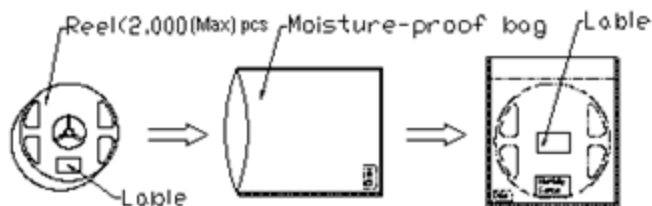
Unit: mm

Arrangement of Tape:



Unit: mm

Packaging Specifications:





Labeling



Part No: _____

Customer P/N: _____

Item: _____

Q'ty: _____

Vf: _____

Iv: _____

WI: _____

Date: _____

Made in China

Ordering Information

Orderable Part #	Spec Range	Quantity per reel
QBLP677B-RD-2897	Iv=4200mcd typ. @ If=50mA / λd=620-630nm	2,000 units



Revision History

Description:	Revision #	Revision Date
New Release of QBLP677B-RD-2897	V1.0	11/23/2025

Disclaimer

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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.

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