

**QT-Brightek PLCC Series**

**Dome Type PLCC4 LED**

**Part No.: QBLP677BD-YD-2897**

**BD: Common Cathode with Dome Lens  
D: 50mA Testing Current  
2897: High Bright**



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## Introduction

### Feature:

- Water clear lens
- Ultra bright PLCC4 LED
- Common cathode
- Viewing angle: 30° typ.
- MSL 3
- Height profile: 3.6mm

### Application:

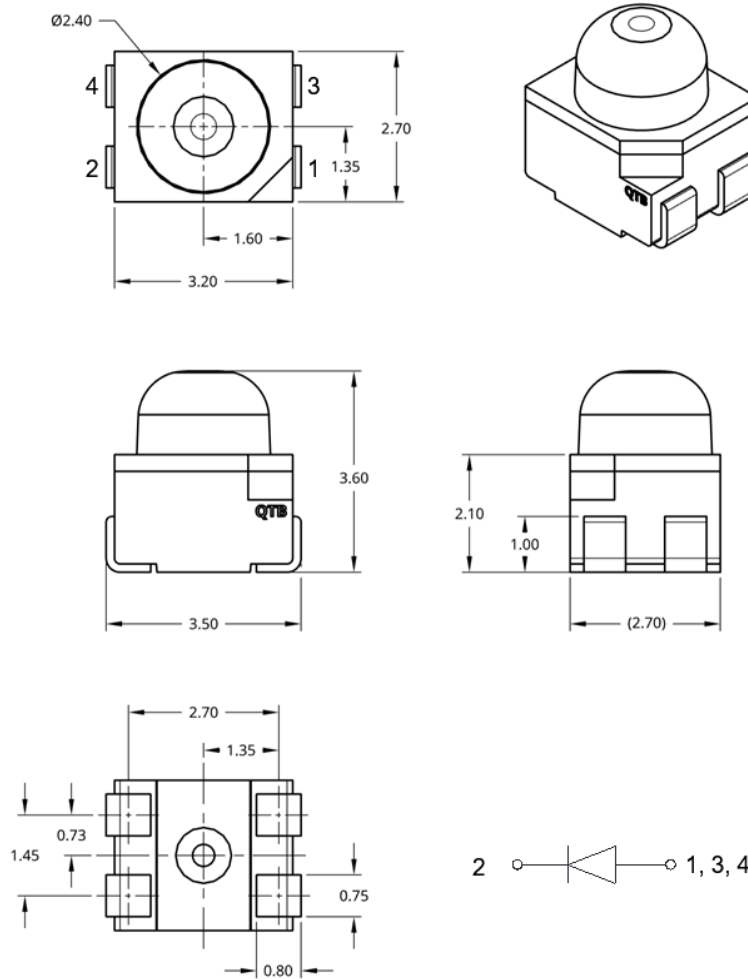
- Warning light
- Emergency light
- Architecture lighting

### Certification & Compliance:

- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / tolerance = +/-0.2mm

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

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>D</sub> (nm)			λ <sub>P</sub> (nm)	I <sub>V</sub> (mcd)		
			Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.	Max.
QBLP677BD-YD-2897	Yellow	50	2.3	2.8	586	590	595	592	7100	15200	24576

## Absolute Maximum Rating

Chip Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
AllnGaP	196	70	150	5	-40 ~ +90	-40 ~ +90	240

\*Duty 1/10 @ 1KHz

\*\*IR Reflow for no more than 8 sec @ 240 °C

## Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=50mA

Bin	Min.	Max.	Unit
1	1.9	2.2	V
2	2.2	2.5	
3	2.5	2.8	

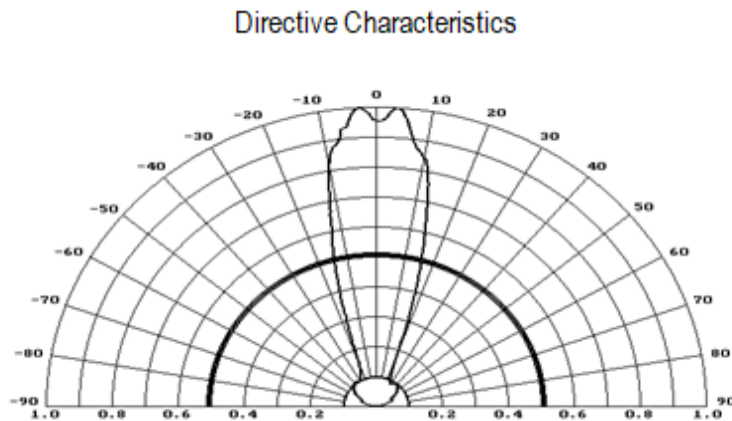
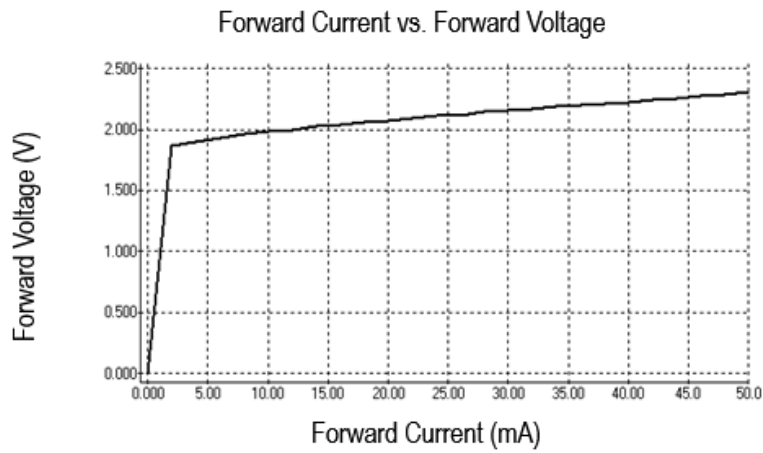
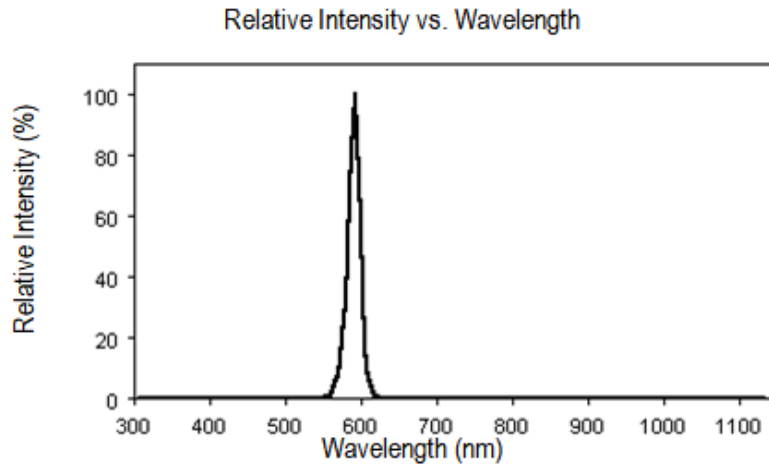
## Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=50mA

Bin	Min.	Max.	Unit
a	7100	9284	mcd
b	9284	12015	
c	12015	15292	
d	15292	19388	
e	19388	24576	

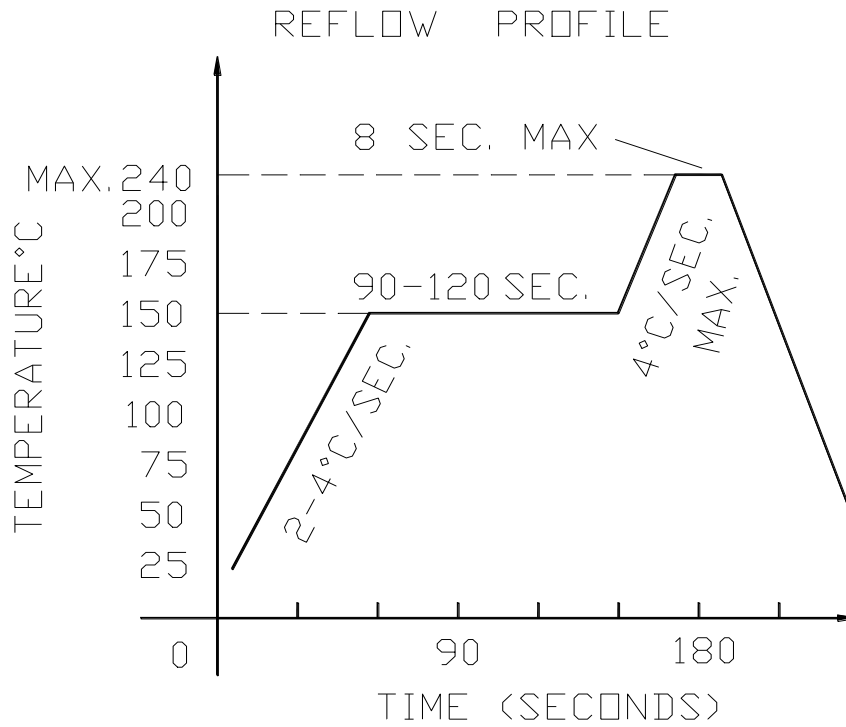
## Dominant Wavelength λ<sub>D</sub> for @ I<sub>F</sub>=50mA

Bin	Min.	Max.	Unit
A	586	589	nm
B	589	592	
C	592	595	

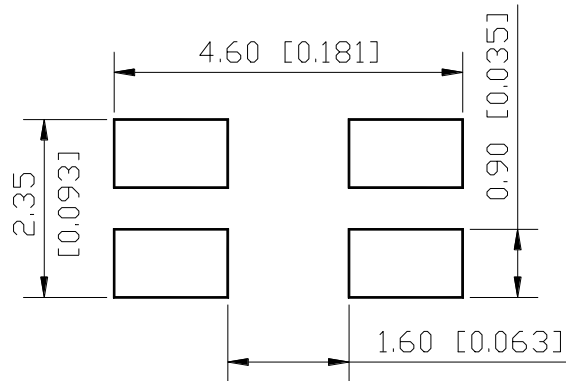
## Characteristic Curves



## Solder Profile & Footprint



### Recommend Pad Layout



Units: mm

## Handling Precautions

1. It is recommended to store the products in sealed and anti-static bags with desiccant inside at the following condition:

- Humidity: <60% RH
- Temperature: 5°C~30°C

2. Shelf life in sealed bag: 12 month at 5°C~30°C and <60% R.H

3. After the package is opened:

3.1 The products should be used within a week (168 hours)

3.2 Or product should be stored at  $\leq 20\%$  RH and (5°C~30°C) with zip-lock sealed bag

3.3 It is recommended to bake before soldering when the package is unsealed after 72hrs;

3.3.1 Baking condition (Tape and Reel Type):  $60\pm 3^\circ\text{C}$  (24~36 hrs) and < 5% RH

3.4 Products require baking before soldering/mounting if **3.1** or **3.2** is not met. Baking condition refers to **3.3.1**

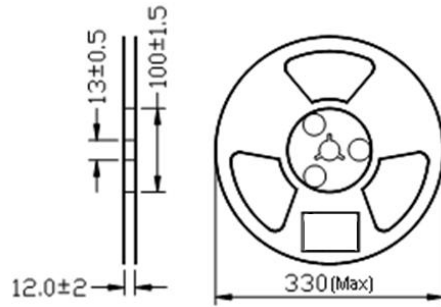
4. If the product is not used within 3 months since manufacturing date, it is recommended to bake for 24 hrs @ 60°C before use.

5. If the product is not used after 3 months since manufacturing date, it is recommended to bake for 36~48 hrs @ 60°C before use.

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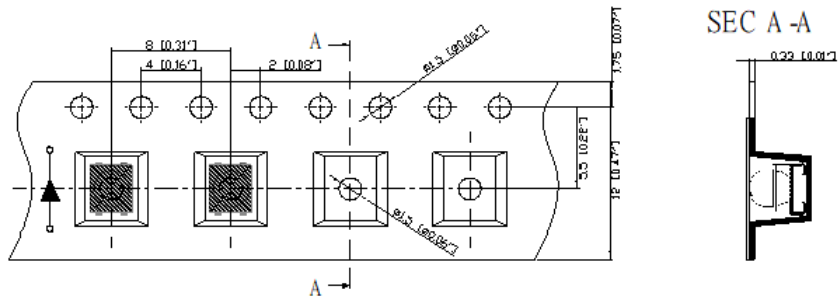
## Packing

### Reel Dimension:



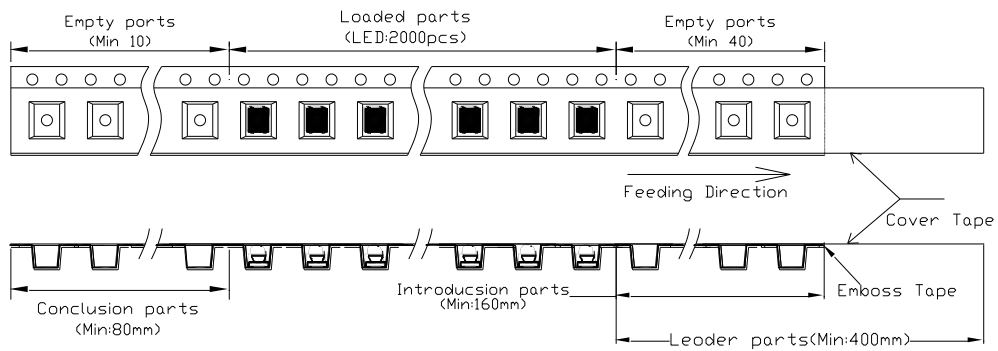
Unit: mm

### Dimensions of Tape:

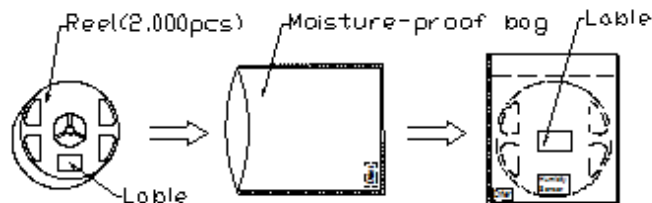


Unit: mm

### Arrangement of Tape:



### 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
QBLP677BD-YD-2897	Iv=15200mcd typ., λD=586nm to 595nm @ IF=50mA	2000 units



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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP677BD-YD-2897	V1.0	11/19/2025

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## 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.