

**QT-Brightek PLCC LED Series**  
**SMD 1608 (0603) PLCC-2 LEDs**

**Part No.: QBLP661-XX Series**

**XX: Color Code**

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## Introduction

### Feature:

- Water clear lens
- Package in tape and reel
- 1608 (0603) PLCC-2 Package
- Viewing angle: 120deg typ.
- AlInGaP technology for O/Y
- MSL 5A

### Description:

These ultrabright 0603 PLCC-2 LEDs have a height profile of 0.55mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

### Application:

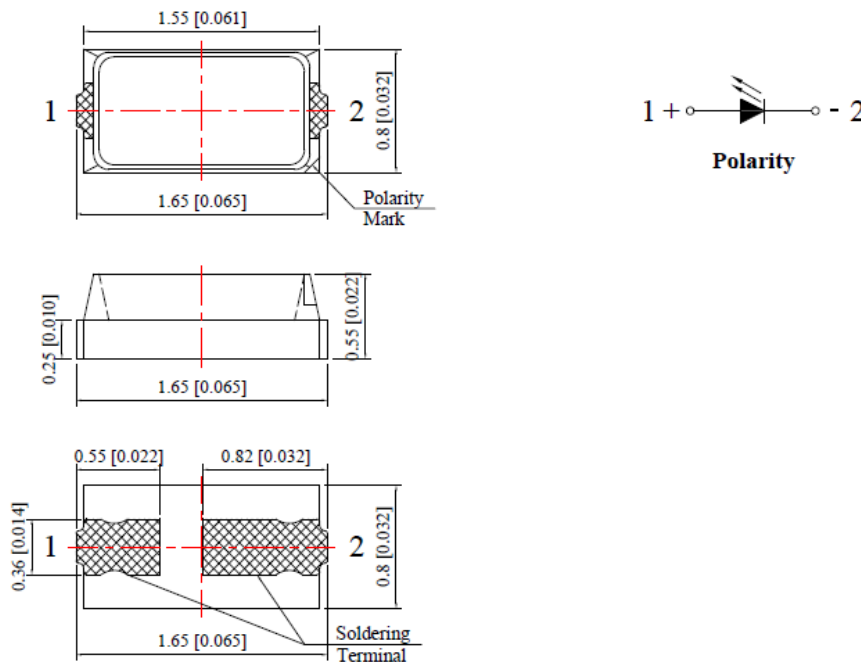
- Status indication
- Back lighting application

### 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)			I <sub>V</sub> (mcd)		
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
QBLP661-O	Orange	20	1.6	2.0	2.4	600	605	610	100	200	400
QBLP661-Y	Yellow	20	1.6	2.0	2.4	585	590	595	100	250	400

### Absolute Maximum Rating

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>SO L</sub> (°C)**
AllnGaP (O/Y)	60	25	100	5	-40 ~ +85	-40 ~ +90	260

\*Duty 1/8 @ 1KHz

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

### Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=20 mA

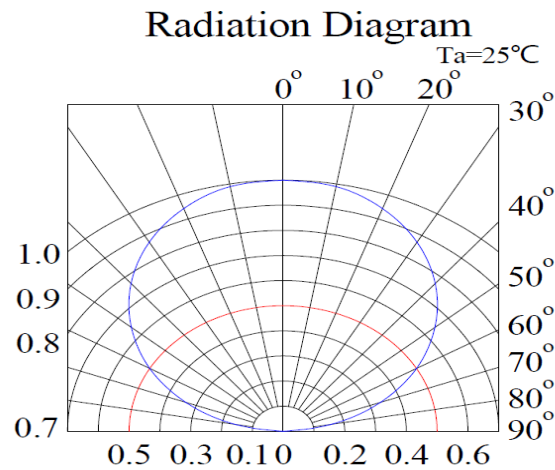
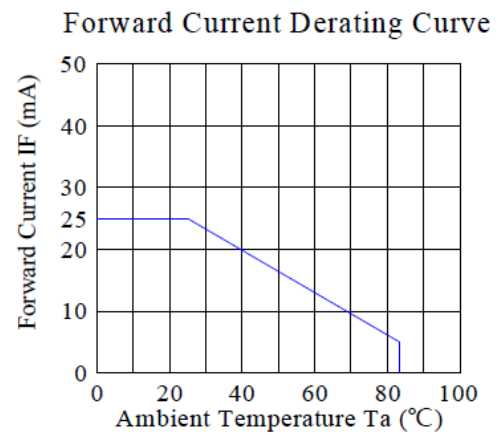
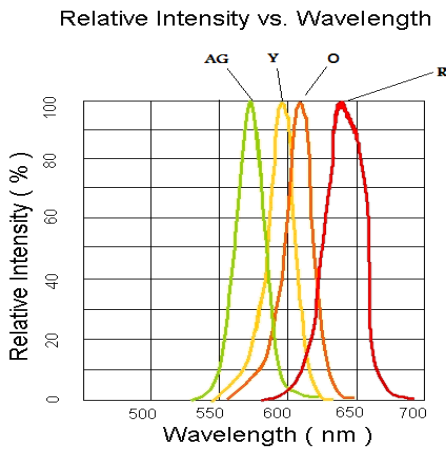
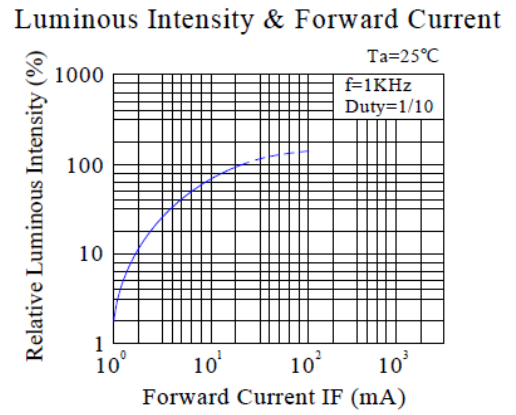
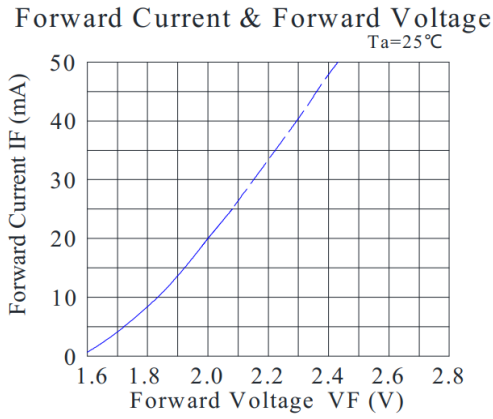
Bin	Min.	Max.	Unit
a	1.6	1.8	V
b	1.8	2.0	
c	2.0	2.2	
d	2.2	2.4	

### Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=20mA

Bin	Min.	Max.	Unit
1	100	200	mcd
2	200	300	
3	300	400	

## Characteristic Curves

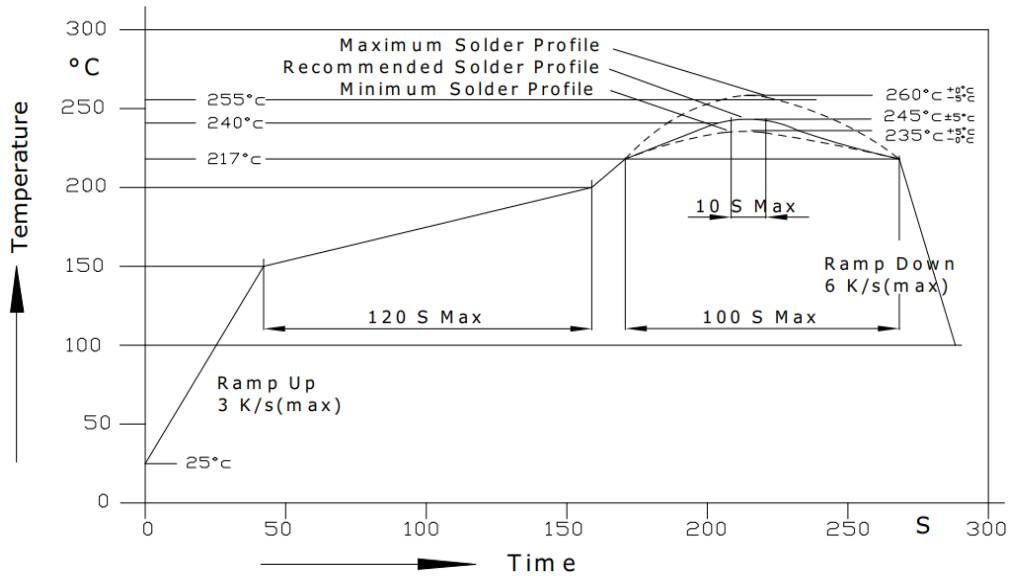
AllnGaP (O/Y)



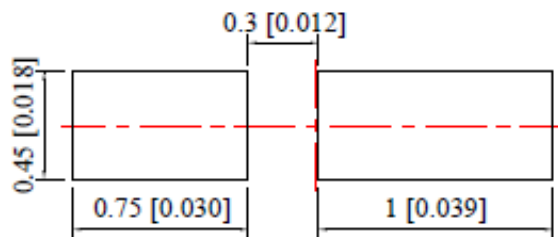
## Solder Profile & Footprint

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

Pb-free solder temperature profile.



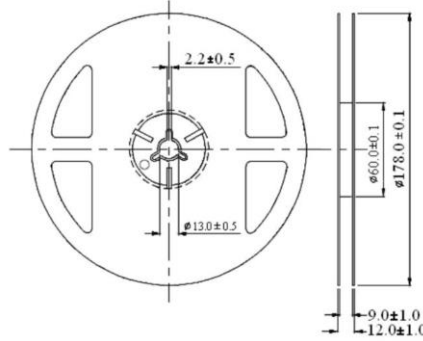
### Recommended Pad Layout



Units: mm

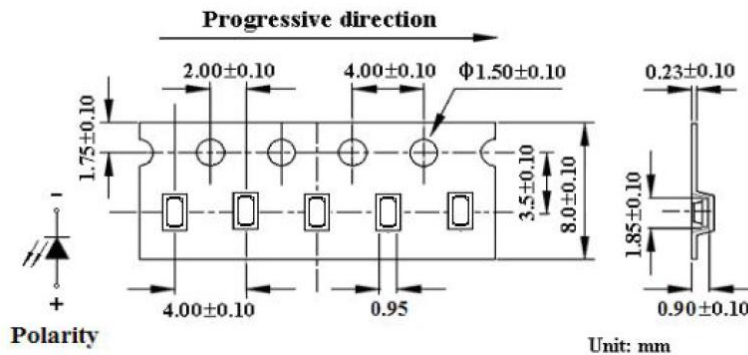
## Packing

### Reel Dimension:



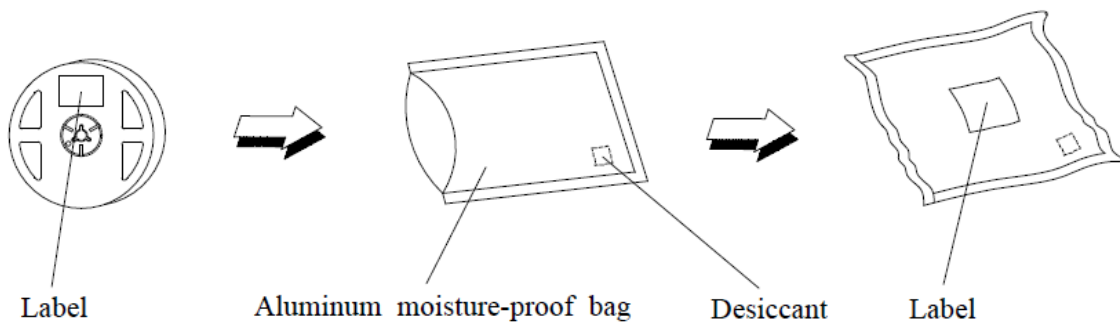
Unit: mm

### Tape Dimension:



Unit: mm

### Packing & Label Specifications:



**Labeling**

Part No: \_\_\_\_\_

Customer P/N: \_\_\_\_\_

Item: \_\_\_\_\_

Q'ty: \_\_\_\_\_

Vf: \_\_\_\_\_

Iv: \_\_\_\_\_

WI: \_\_\_\_\_

Date: \_\_\_\_\_

**Made in China****Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP661-O	QBLP661-O	Iv=150mcd Typ. @ I <sub>F</sub> =20mA / Color=600nm-610nm	4,000 units
QBLP661-Y	QBLP661-Y	Iv=250mcd Typ. @ I <sub>F</sub> =20mA / Color=585nm-595nm	4,000 units



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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP661-XX series	V1.0	5/27/2020

## 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.