

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

**Part No.: QBLP661-IW5-CW**

**CW: Cool White**  
**5: 5mA Sorting**

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## Introduction

### Feature:

- Yellow diffused lens
- Package in tape and reel
- 1608 (0603) PLCC-2 Package
- 1608 Metric (0603) PLCC-2 Package
- Compatible with 0603 SMD form factor
- Sorted @ 5mA
- Viewing angle: 120deg typ.
- InGaN technology
- 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:

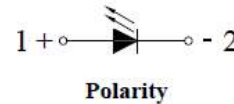
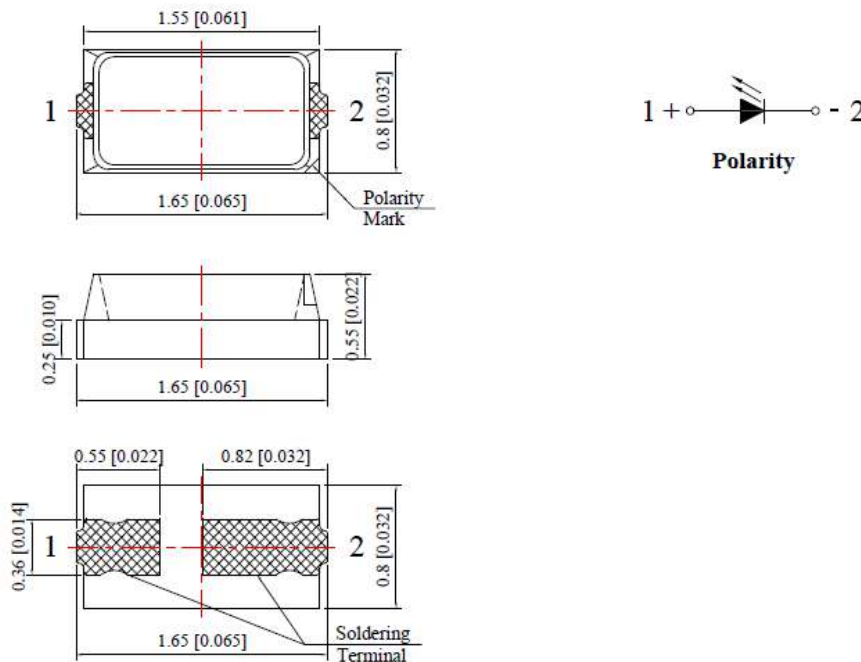
- Status indication
- Back lighting application

### 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)			Chromaticity Coordinate	I <sub>v</sub> (mcd)		
			Min.	Typ.	Max.	Typ.	Min.	Typ.	Max.
QBLP661-IW5-CW	Cool White	5	2.5	2.8	3.1	X=0.277, Y=0.280 CCT: 11000K	100	350	900
		10*	-	2.9	-		-	700	-
		20*	2.8	3.2	3.6		-	1500	-

\*V<sub>F</sub> and I<sub>v</sub> values are provided for reference

**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)**
InGaN	90	25	100	5	-40 ~ +85	-40 ~ +90	260

\*Duty 1/8 @ 1KHz

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

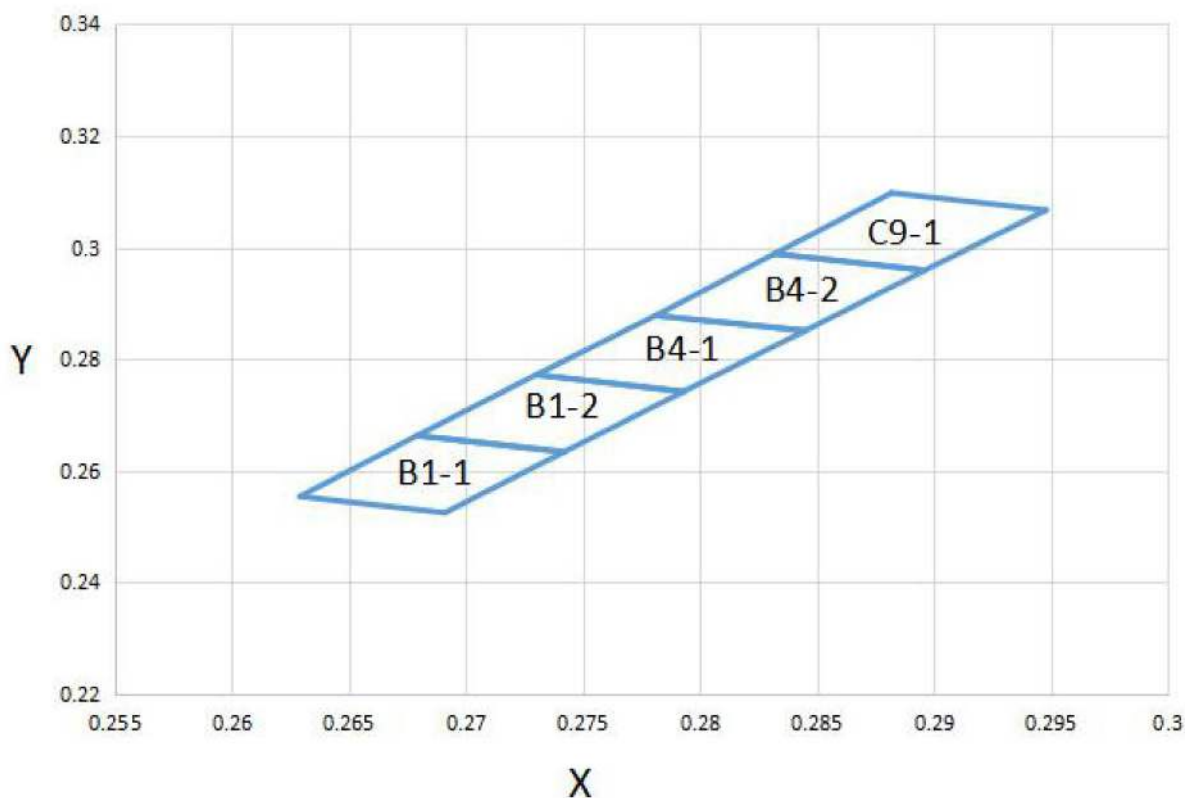
**Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=5mA**

Bin	Min.	Max.	Unit
f	2.5	2.7	V
g	2.7	2.9	
h	2.9	3.1	

**Luminous Intensity I<sub>v</sub> @ I<sub>F</sub>=5mA**

Bin	Min.	Max.	Unit
1	100	300	mcd
2	300	500	
3	500	900	

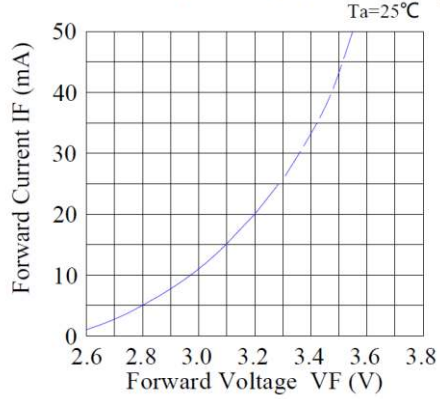
### CIE Chromaticity Diagram



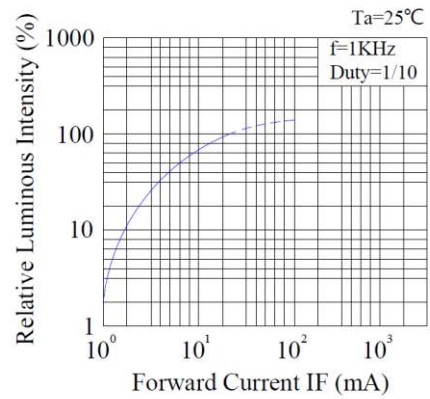
Bin	X1	Y1	X2	Y2	X3	Y3	X4	Y4
B1-1	0.2691	0.2525	0.2629	0.2554	0.2679	0.2663	0.2742	0.2634
B1-2	0.2742	0.2634	0.2679	0.2663	0.2730	0.2772	0.2793	0.2742
B4-1	0.2793	0.2742	0.2730	0.2772	0.2781	0.2878	0.2845	0.2851
B4-2	0.2845	0.2851	0.2781	0.2878	0.2832	0.2989	0.2896	0.2959
C9-1	0.2896	0.2959	0.2832	0.2989	0.2882	0.3098	0.2948	0.3067

## Characteristic Curves

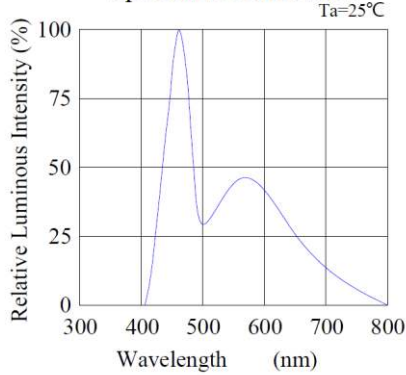
Forward Current & Forward Voltage



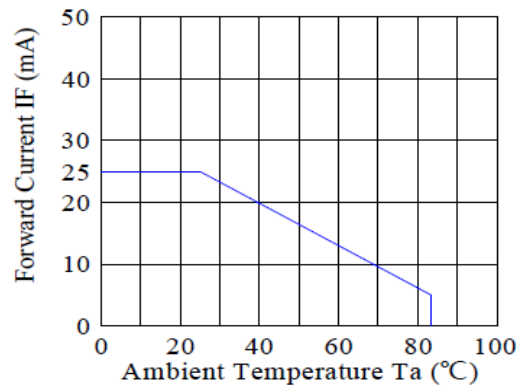
Luminous Intensity & Forward Current



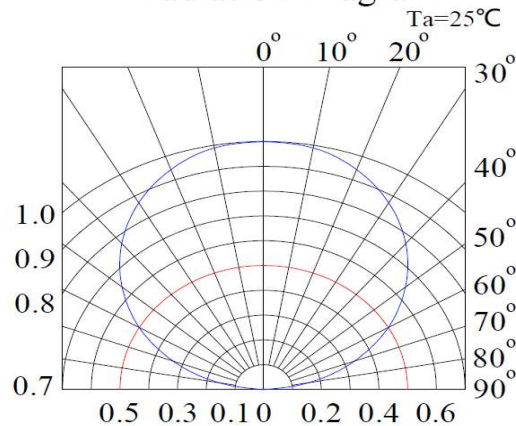
Spectrum Distribution



Forward Current Derating Curve



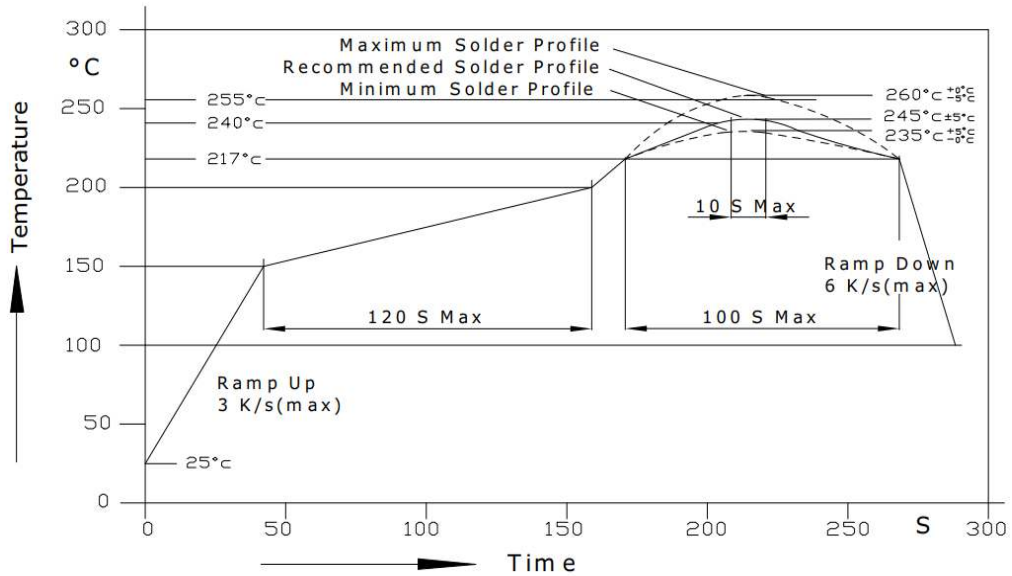
Radiation Diagram



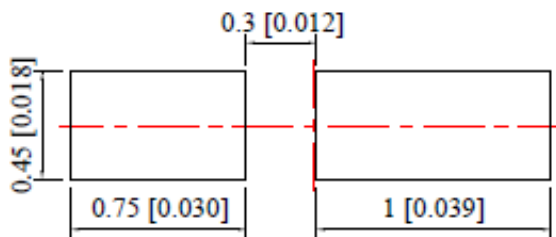
## Solder Profile & Footprint

-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.



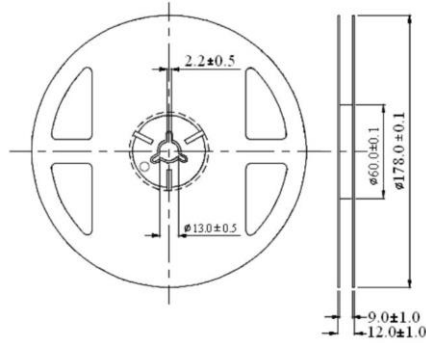
### Recommended Pad Layout



Units: mm

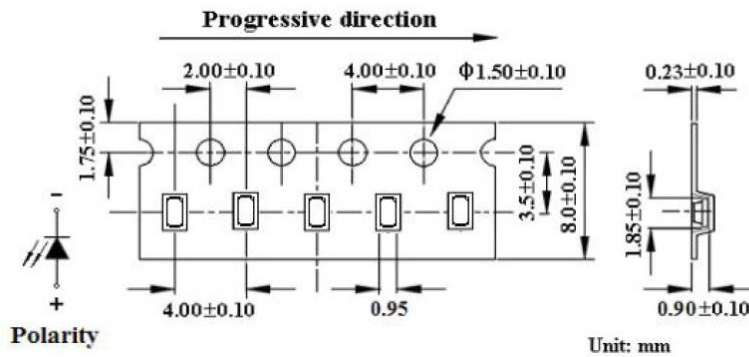
## Packing

### Reel Dimension:



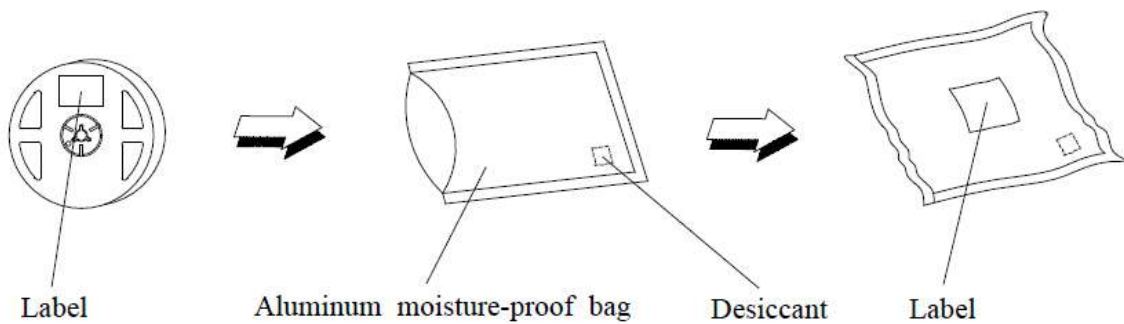
Unit: mm

### Tape Dimension:



Unit: mm

### Packing & Label Specifications:



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**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-IW5-CW	QBLP661-IW5-CW	Iv=350mcd Typ. @ I <sub>F</sub> =5mA / Chromaticity Coordinate: (0.277, 0.280) typ.	4,000 units

**Revision History**

Description:	Revision #	Revision Date
New Release of QBLP661-IW5-CW	V1.0	12/01/2020

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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.