

# QT-Brightek PLCC Series

## 3014 White LED

**Part No.: QBLP674-IWM-XX**

**XX=WW/NW/CW**

**M=30mA**

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## Introduction

**Feature:**

- Diffused lens
- Package in tape and reel
- Low thermal resistance
- Viewing Angle 120°
- XX= WW/NW/CW
- CRI 80

**Description:**

The low profile high bright LED has height of 0.75mm. It is ideal for in door lighting and general used.

**Application:**

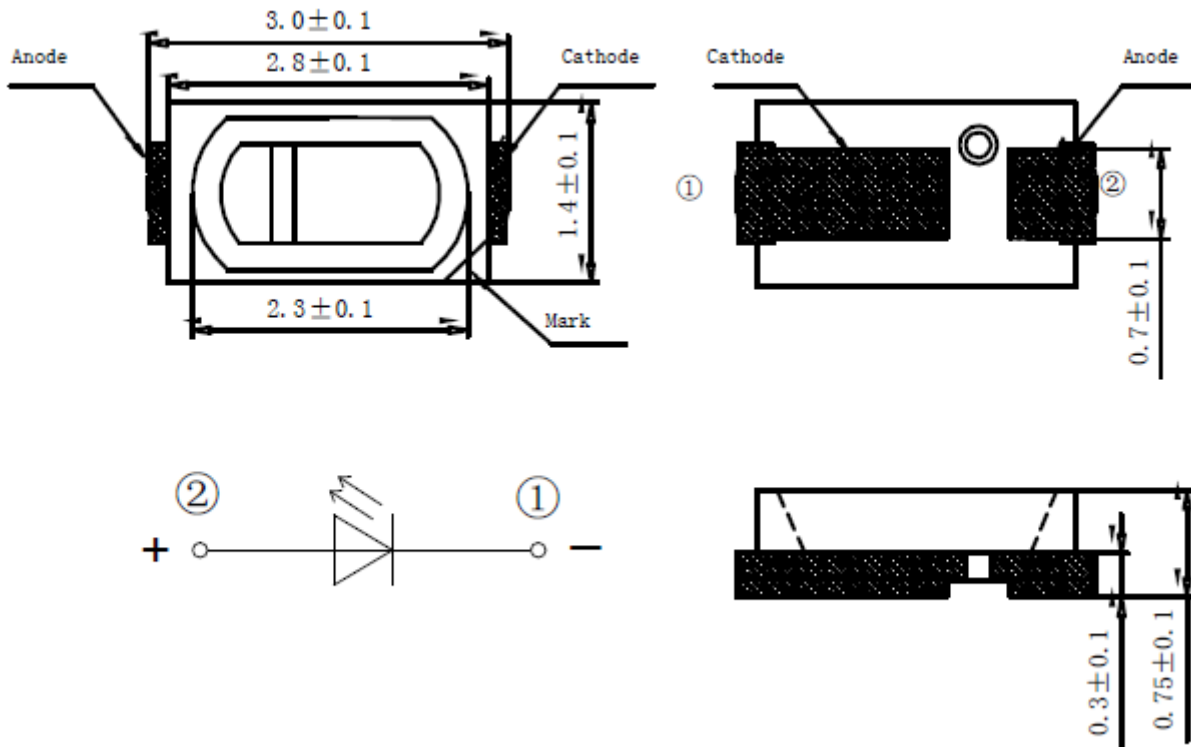
- Architectural and outdoor lighting
- Household appliances
- General lighting

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant



**Outline Dimensions:**



Units: mm / tolerance = +/-0.1mm

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

Product Number	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)			CCT (K)			I <sub>v</sub> (mcd)	
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP674-IWM-WW	Warm White	30	2.8	3.2	3.4	2760	3000	3260	2400	3200
QBLP674-IWM-NW	Natural White	30	2.8	3.2	3.4	3640	4000	4240	2400	3400
QBLP674-IWM-CW	Cool White	30	2.8	3.2	3.4	5300	6020	7050	2400	3400

## 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>SOL</sub> (°C)**
InGaN	100	35	100	5	-30 ~ +85	-40 ~ +100	260

\*Duty 1/10 @ 1KHz

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

## Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=30mA

Bin	Min.	Max.	Unit
H	2.8	3.0	V
J	3.0	3.2	
K	3.2	3.4	

## Luminous Intensity I<sub>v</sub> @ I<sub>F</sub>=30mA

Bin	Min.	Max.	Unit
L3	2400	2880	mcd
L4	2880	3450	
L5	3450	4150	

Note:

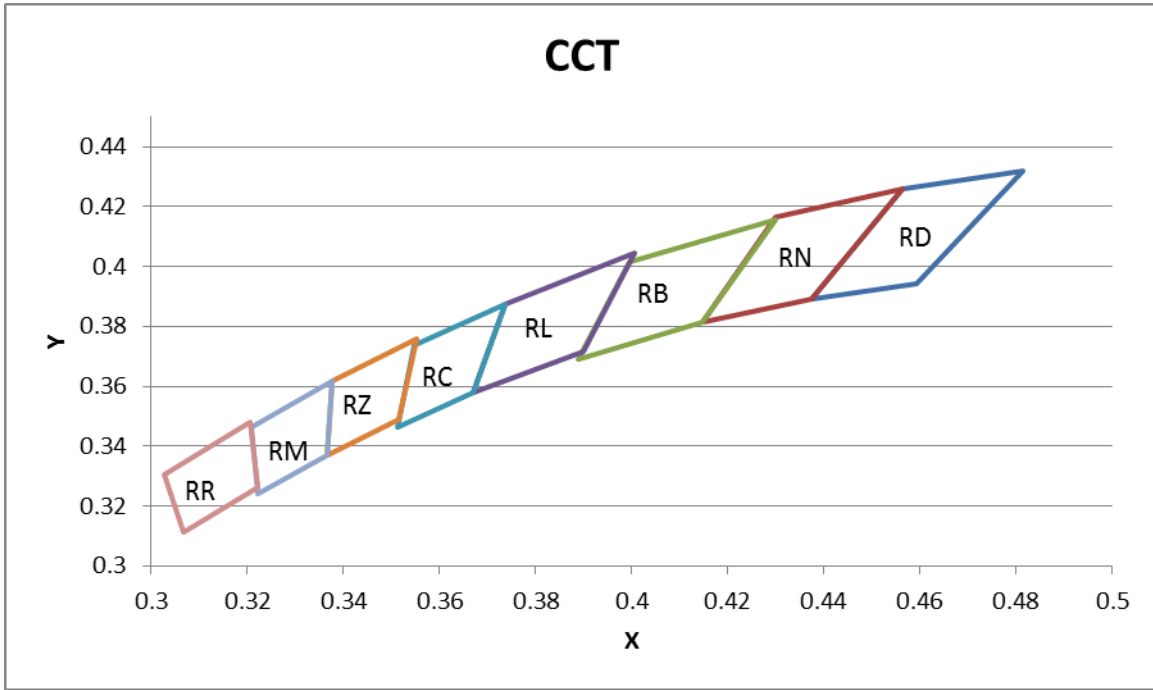
Tolerance of measurement of forward voltage: ±0.1V

Tolerance of measurement of luminous intensity: ±15%

## Correlated Color Temperature (CCT) @ I<sub>F</sub>=30mA

Bin	Min.	Max.	Unit
RN	2760	3260	K
RL	3640	4240	
RM	5300	6020	
RR	6020	7050	

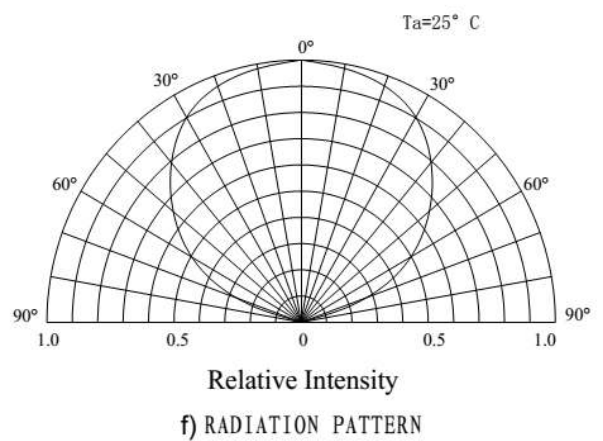
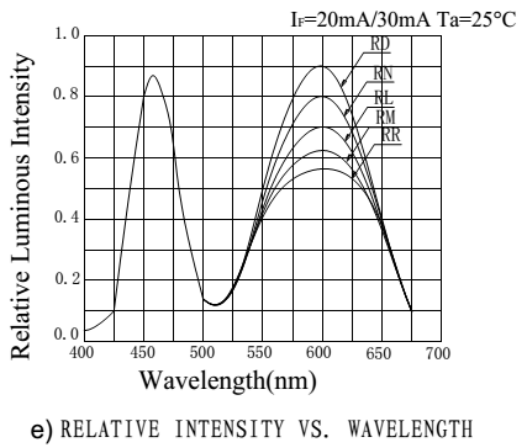
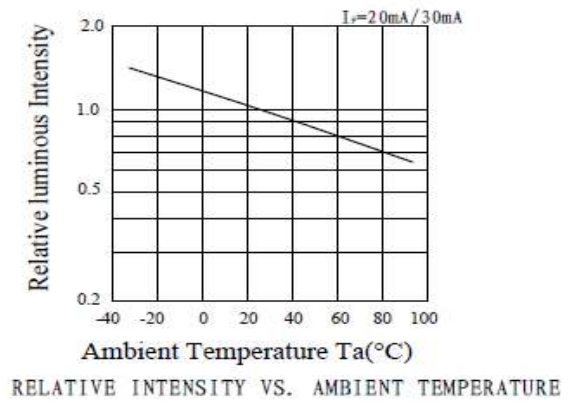
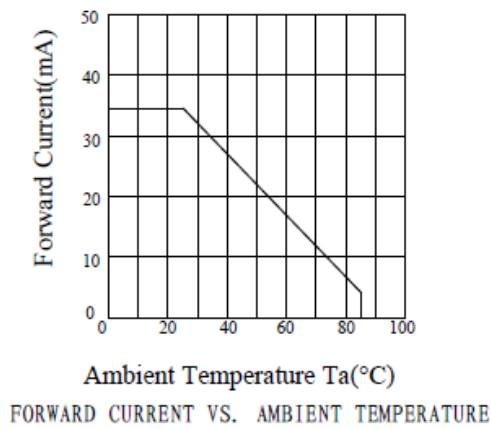
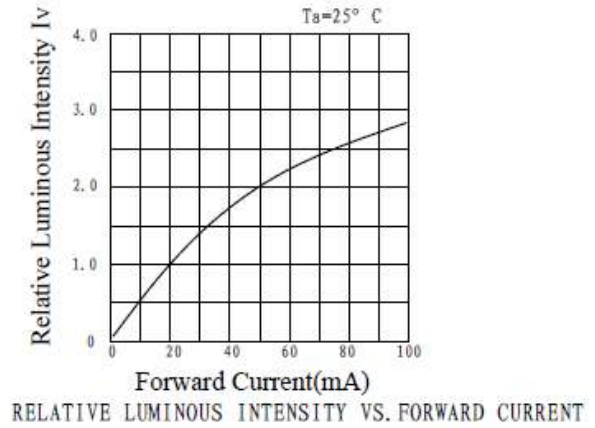
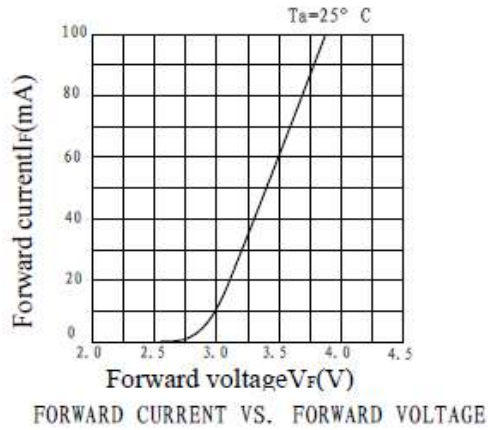
**Correlated Color Temperature and Chromaticity Correlation**



Color Ranks @ I <sub>F</sub> =30mA							
RD		RN		RB		RL	
0.4813	0.4319	0.4562	0.426	0.4299	0.4156	0.4006	0.4044
0.4562	0.426	0.4299	0.4165	0.3996	0.4015	0.3736	0.3874
0.4373	0.3893	0.4147	0.3814	0.3889	0.369	0.367	0.3578
0.4593	0.3944	0.4373	0.3893	0.4147	0.3814	0.3898	0.3716
0.4813	0.4319	0.4562	0.426	0.4299	0.4156	0.4006	0.4044
RC		RZ		RM		RR	
0.3736	0.3874	0.3551	0.376	0.3376	0.3616	0.3205	0.3481
0.3548	0.3736	0.3376	0.3616	0.3207	0.3462	0.3028	0.3304
0.3512	0.3465	0.3366	0.3369	0.3222	0.3243	0.3068	0.3113
0.367	0.3578	0.3515	0.3487	0.3366	0.3369	0.3221	0.3261
0.3736	0.3874	0.3551	0.376	0.3376	0.3616	0.3205	0.3481

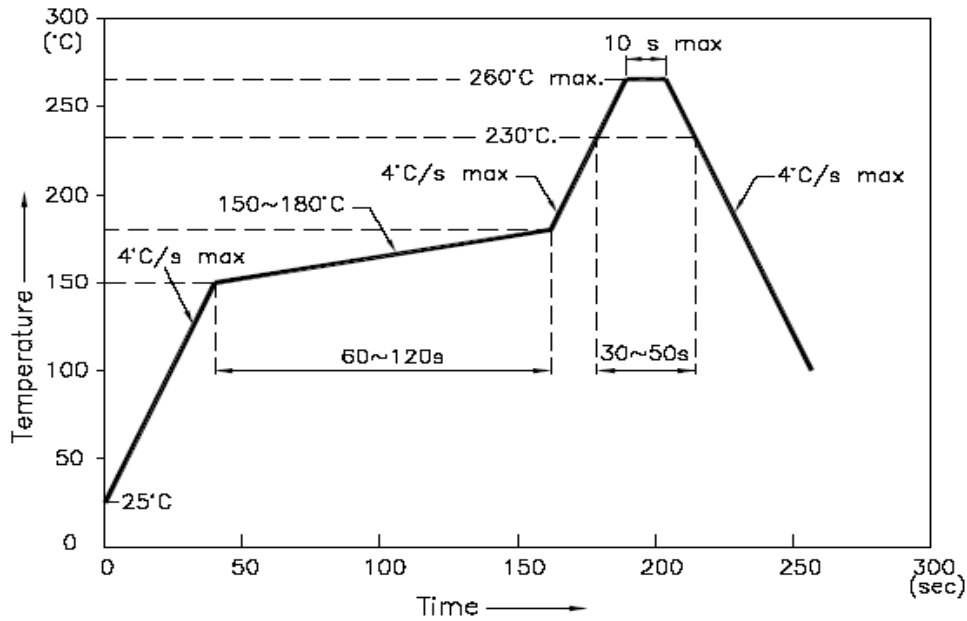
Note:  
Tolerance of measurement of Color Coordinates: ±0.01

**Characteristic Curves**

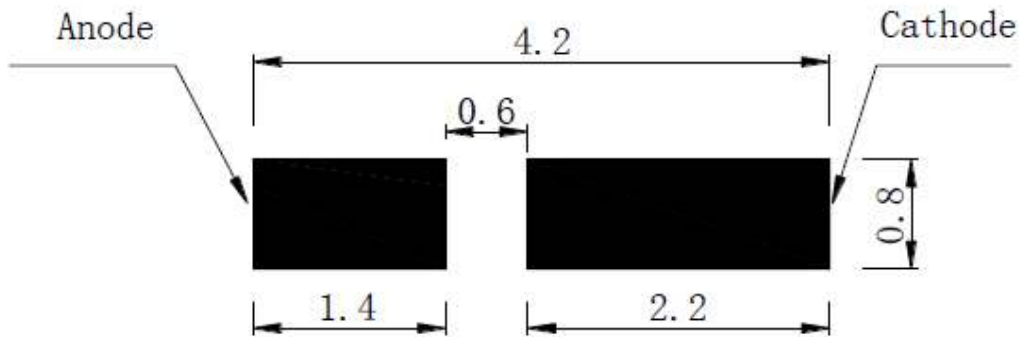


## Soldering Profile

- Recommended tin solder specifications: melting temperature in the range of 178~192 °C
- The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



## Recommended Pad Layout

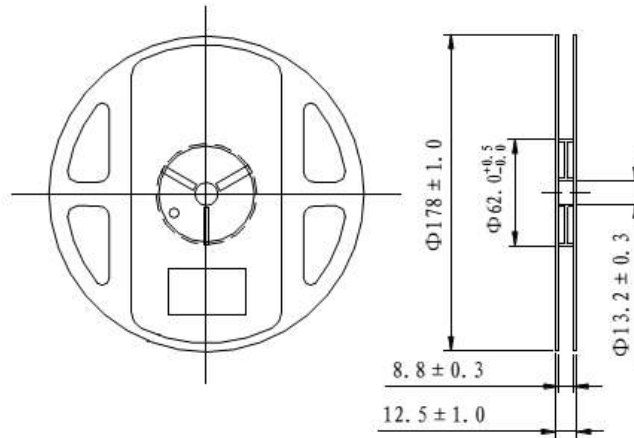


Units: mm

Tolerance: ± 0.2mm

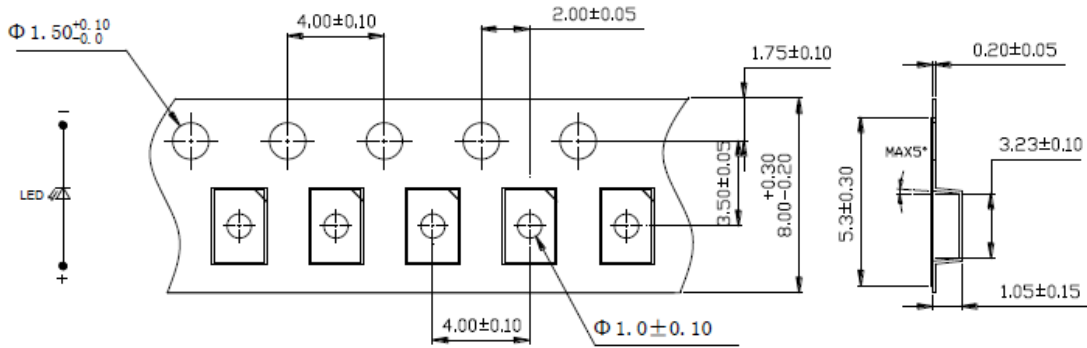
## Packing

Reel Dimensions:



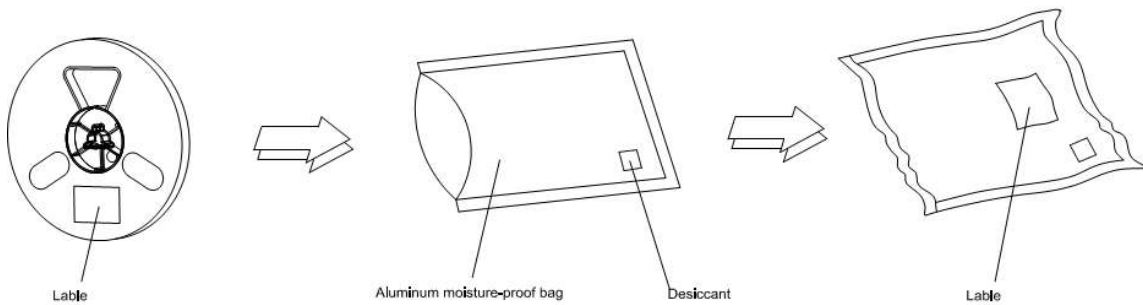
Unit: mm

Tape Dimensions:



Unit: mm

Packaging 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
QBLP674-IWM-WW	QBLP674-IWM-WW	Iv=3200mcd typ. @ 30mA/ CCT=2760-3260K	2,000 units
QBLP674-IWM-NW	QBLP674-IWM-NW	Iv=3400mcd typ. @ 30mA/ CCT=3640-4240K	2,000 units
QBLP674-IWM-CW	QBLP674-IWM-CW	Iv=3400mcd typ. @ 30mA/ CCT=5300-7050K	2,000 units

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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP674-IWM-XX	V1.0	02/13/2013
Amend the package dimension/ optical and electrical specification/ recommend pad layout	V2.0	06/20/2013
Information Update	V2.1	09/10/2013
Update Spec and VF bin, add CRI info	V2.2	10/25/2013
Update outline dimension tolerance	V2.3	12/10/2013
Update packing spec	V2.4	03/25/2014

## 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.