

**QT-Brightek PLCC Series**

**PLCC6 LED**

**Part No.: QBLP679-RK (High Bright)**

Product: QBLP679-RK (High Bright)	Date: March 19, 2014	Page 1 of 9
	Version# 2.0	

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## Introduction

**Feature:**

- Package in tape and reel
- Ultra bright PLCC6
- High Bright
- 120 degree viewing angle

**Description:**

This PLCC6 LEDs have a height profile of 1.60mm. Combination of high brightness output and robust package, this LED is ideal for architecture lighting, status indication, and general application.

**Application:**

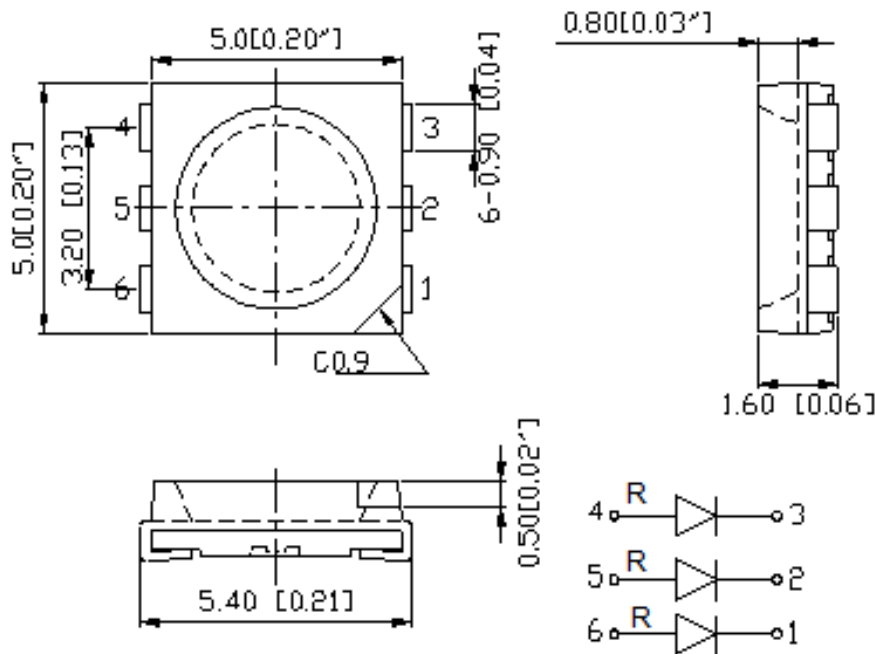
- Status indication
- Industrial equipment backlighting
- Architecture lighting

**Certification & Compliance:**

- TS16949
- 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)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP679-RK (High Bright)	Red	60	2.0	2.5	620	625	635	1000	1800

\*Total forward current for three dies

**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)**	ESD (V)
AllnGaP	216	90	125	5	-40 ~ +80	-40 ~ +85	260	HBM 8000

\*Duty 1/8 @ 1KHz

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

**Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=60mA**

Bin	Min.	Max.	Unit
□	1.7	2.5	V

**Dominant Wavelength λ<sub>D</sub> @ I<sub>F</sub>=60mA**

Bin	Min.	Max.	Unit
C	620	625	nm
D	625	630	
E	630	635	

**Luminous Intensity I<sub>V</sub> for Red @ I<sub>F</sub>=60mA**

Bin	Min.	Max.	Unit
15	1000	1300	mcd
16	1300	1700	
17	1700	2200	

Note:

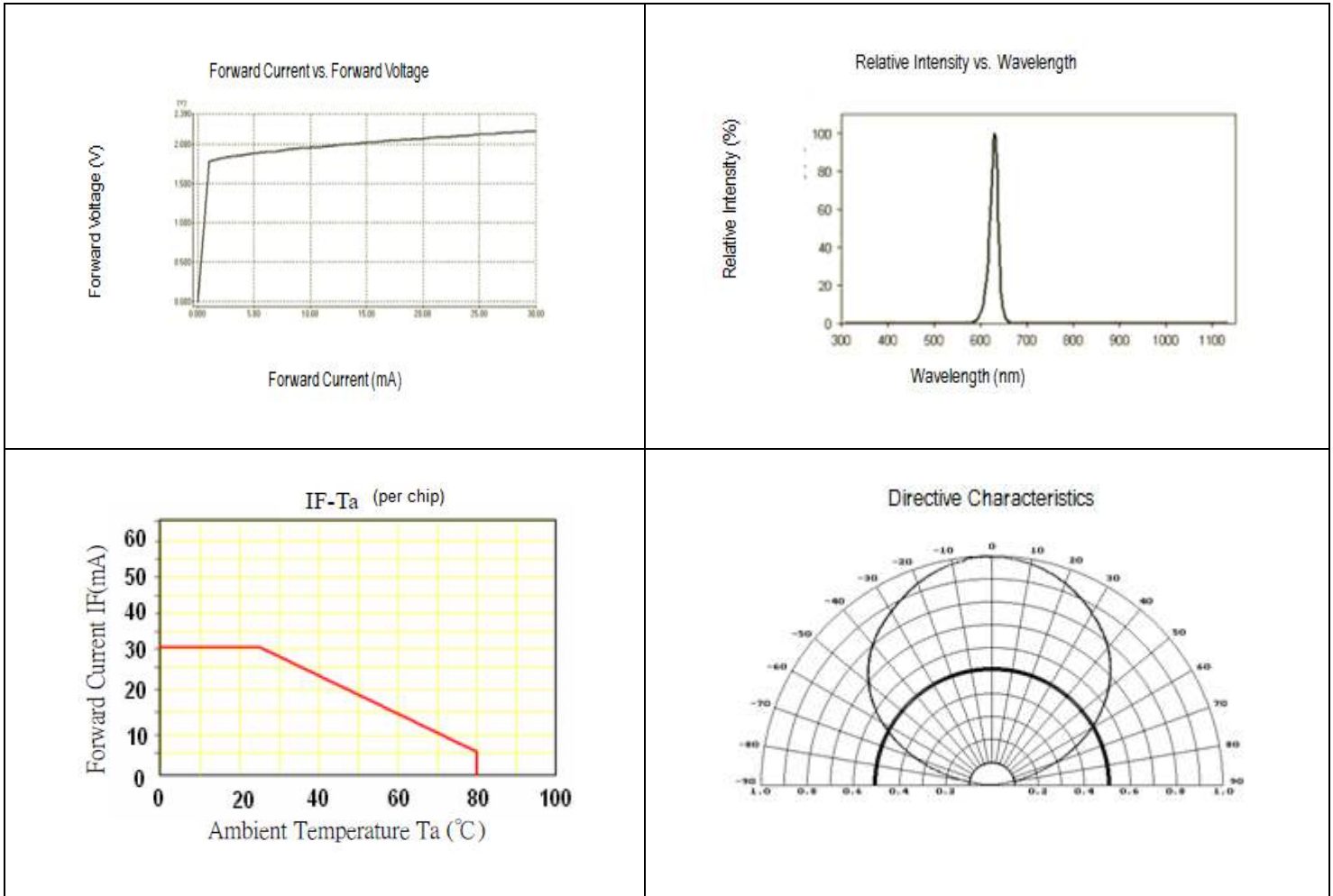
Tolerance of measurement of forward voltage: ±0.05V

Tolerance of measurement of luminous intensity: ±15%

Tolerance of measurement of dominant wavelength: ±1nm

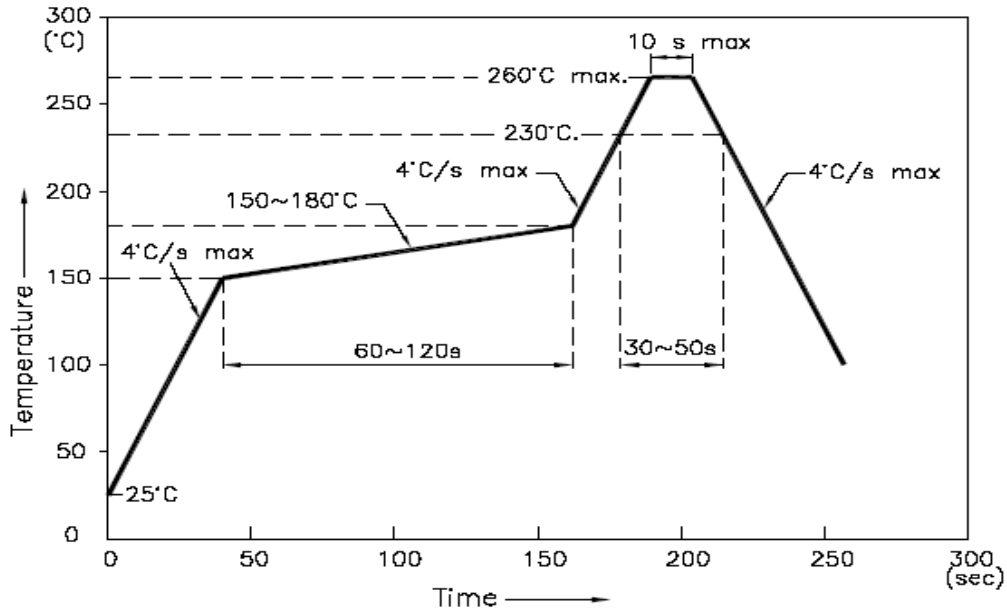
All parameters are measured by QT-BrigtheK instrument

### Characteristic Curves

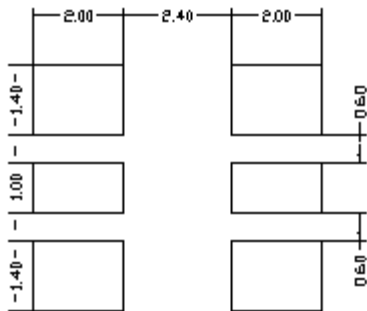


## Solder Profile & Footprint

- 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):



### Recommend Pad Layout

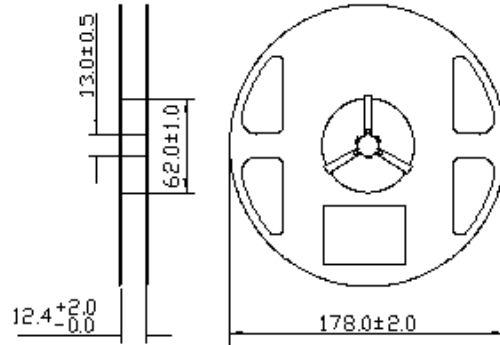


Units: mm

tolerance: +/- 0.2mm

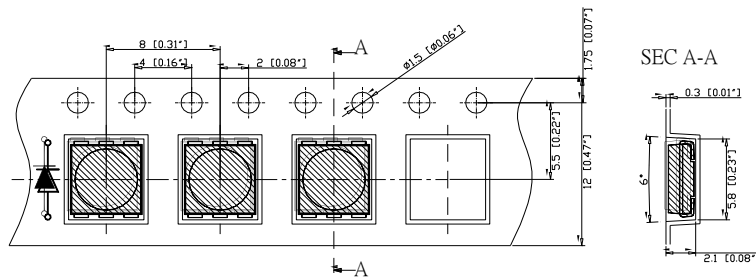
## Packing

Reel Dimension:



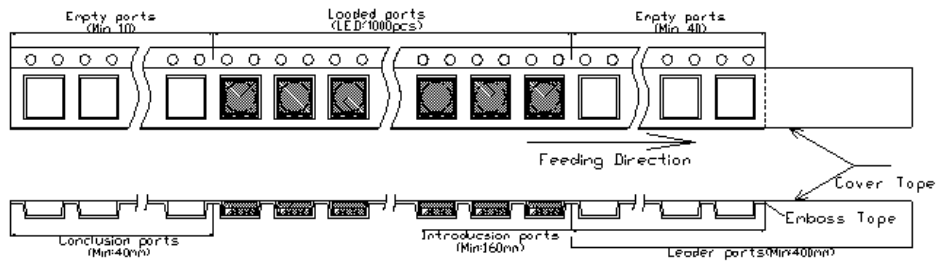
Unit: mm

Tape Dimension:

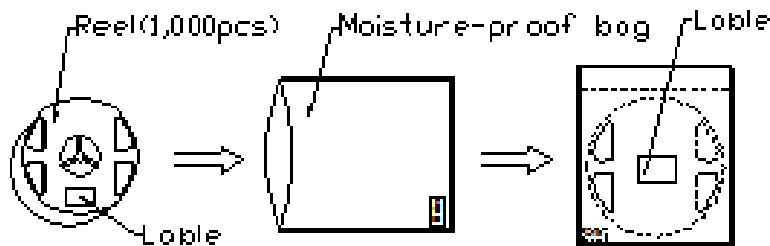


Unit: mm

Arrangement of Tape:



Packaging Specifications:



**Labeling**

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

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

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

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

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

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

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

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

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

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP679-RK (High Bright)	QBLP679-RK (High Bright)	Iv=1000mcd min. @ 60mA/ Color=620nm to 635nm	1,000 units



**Revision History**

Description:	Revision #	Revision Date
New Release of QBLP679-RK (High Bright)	V1.0	02/25/2013
New format/ Amend the typical Brightness	V1.1	06/25/2013
Add ESD HBM information	V1.2	08/12/2013
Update dimension drawing	V2.0	03/19/2014

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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.