QT-Brightek PLCC Series

PLCC6 LED

Part No.: QBLP679-RK (High Bright)

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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.

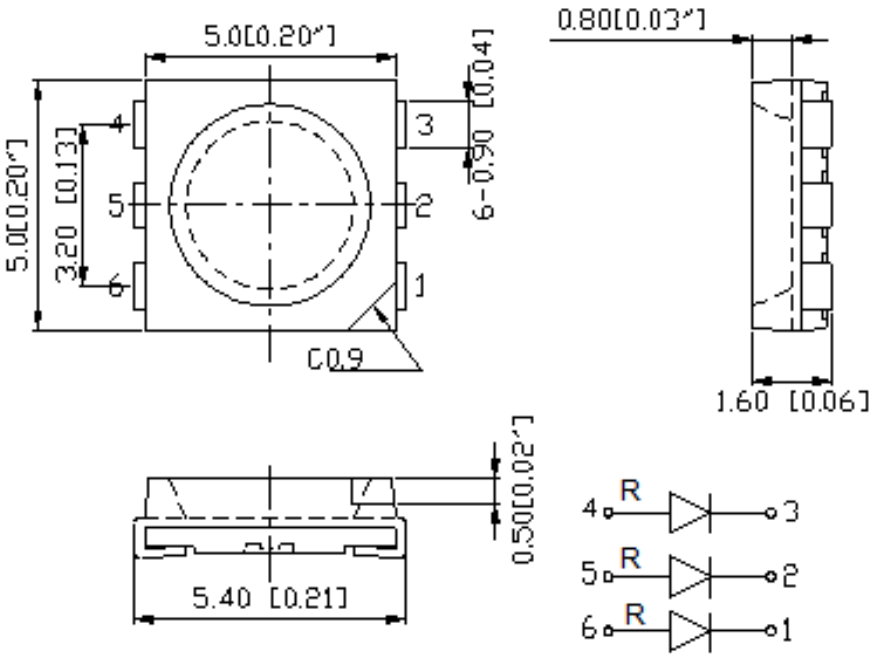
Application:

- 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_F (mA)*	V_F (V)		λ_D (nm)			I_V (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_d (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (°C)	T_{ST} (°C)	T_{SOL} (°C)**	ESD (V)
AlInGaP	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_F @ I_F=60mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

Dominant Wavelength λ_D @ I_F=60mA

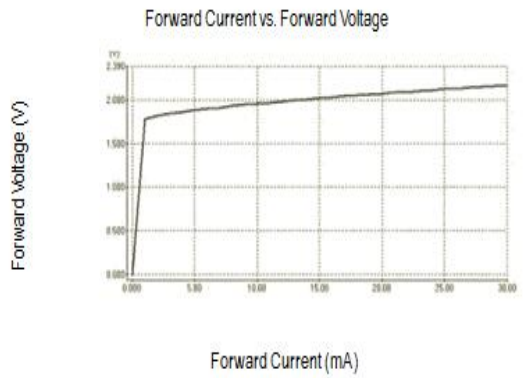
Bin	Min.	Max.	Unit
C	620	625	nm
D	625	630	
E	630	635	

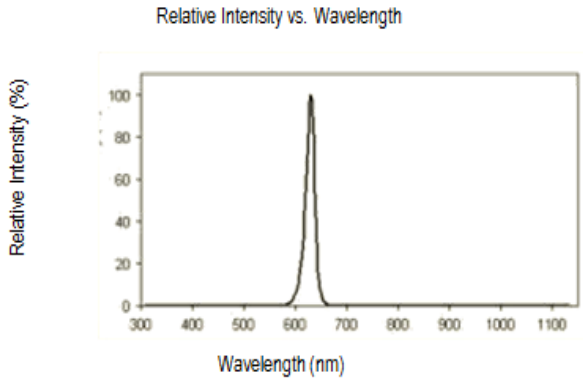
Luminous Intensity I_V for Red @ I_F=60mA

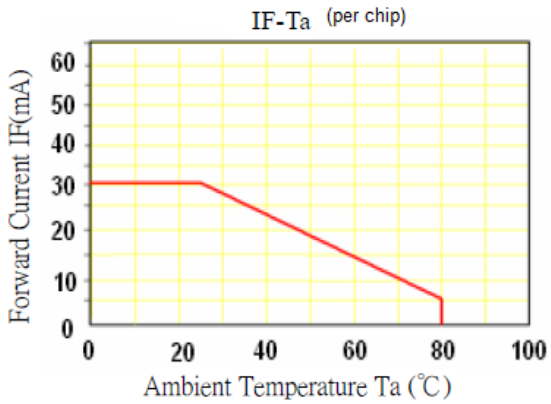
Bin	Min.	Max.	Unit
15	1000	1300	mcd
16	1300	1700	
17	1700	2200	

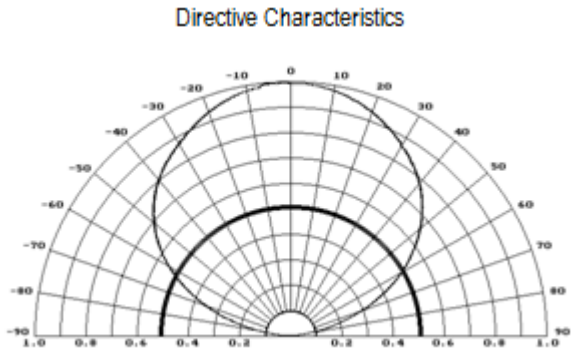
Note:
Tolerance of measurement of forward voltage: ±0.05V
Tolerance of measurement of luminous intensity: ±15%
Tolerance of measurement of dominant wavelength: ±1nm
All parameters are measured by QT-Brigthek instrument

Characteristic Curves



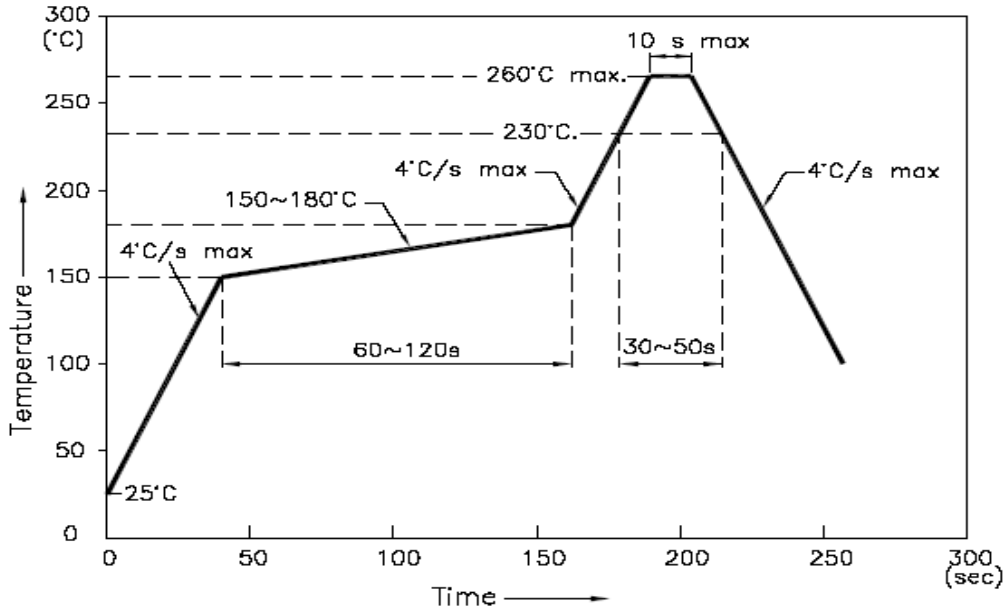




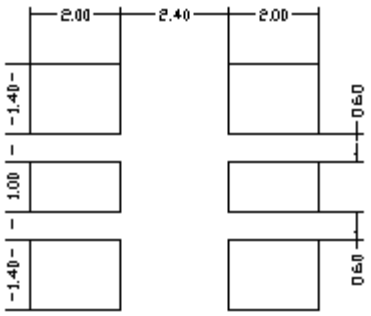


Solder Profile & Footprint

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



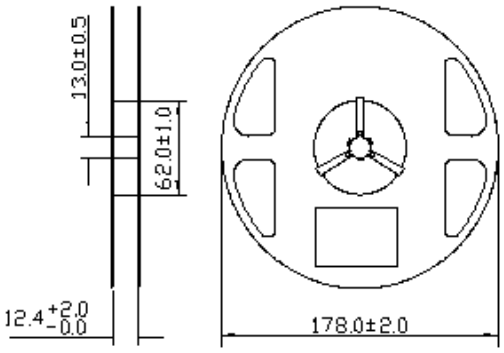
Recommend Pad Layout



Units: mm tolerance: +/- 0.2mm

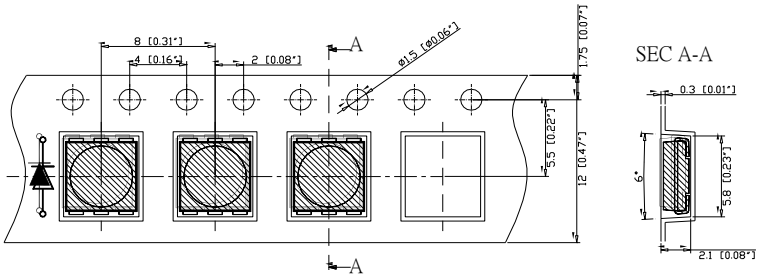
Packing

Reel Dimension:



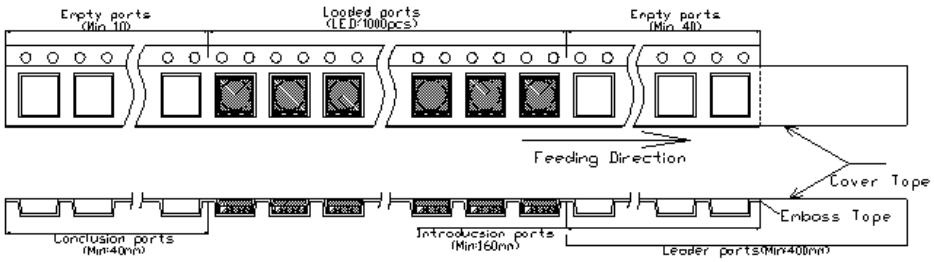
Unit: mm

Tape Dimension:

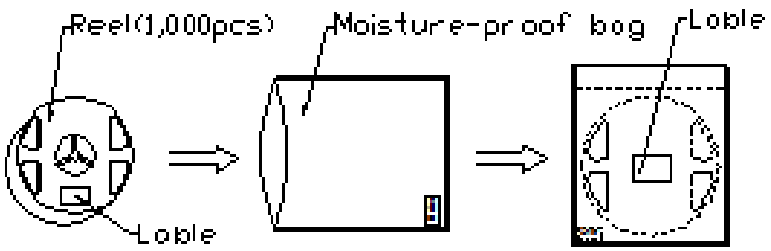


Unit: mm

Arrangement of Tape:



Packaging Specifications:



Labeling

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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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.