

QT-Brightek PLCC Series

PLCC6 LED

Part No.: QBLP679E-XXK

Product: QBLP679E-XXK_series	Date: March 19, 2014	Page 1 of 10
	Version# 2.0	

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Introduction

Feature:

- Package in tape and reel
- Ultra bright PLCC6
- InGaN technology
- 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:

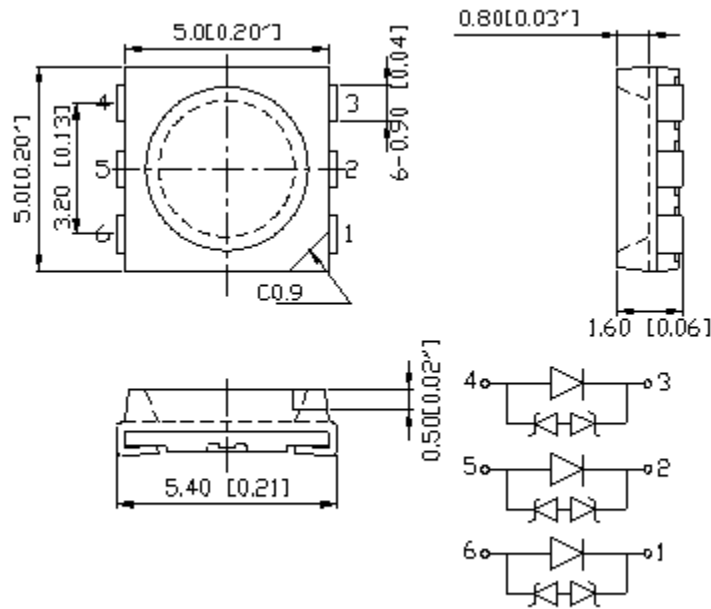
- Status indication
- Industrial equipment backlighting
- Architecture lighting

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.
QBLP679E-IBK	Blue	60	3.3	3.7	462.5	467	472.5	780	1100
QBLP679E-IGK	True Green	60	3.3	3.7	520	525	535	3600	4700

*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 _{SO L} (°C)**	ESD (V)
InGaN	324	90	125	5	-40 ~ +80	-40 ~ +85	260	HBM 12000

*Duty 1/8 @ 1KHz

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

Forward Voltage V_F for InGaN @ I_F=60mA

Bin	Min.	Max.	Unit
f	2.8	3.1	V
g	3.1	3.4	
h	3.4	3.7	

Dominant Wavelength λ_D for Blue @ I_F=60mA

Bin	Min.	Max.	Unit
D	462.5	467.5	nm
E	467.5	472.5	

Dominant Wavelength λ_D for Green @ I_F=60mA

Bin	Min.	Max.	Unit
G	520	525	nm
H	525	530	
I	530	535	

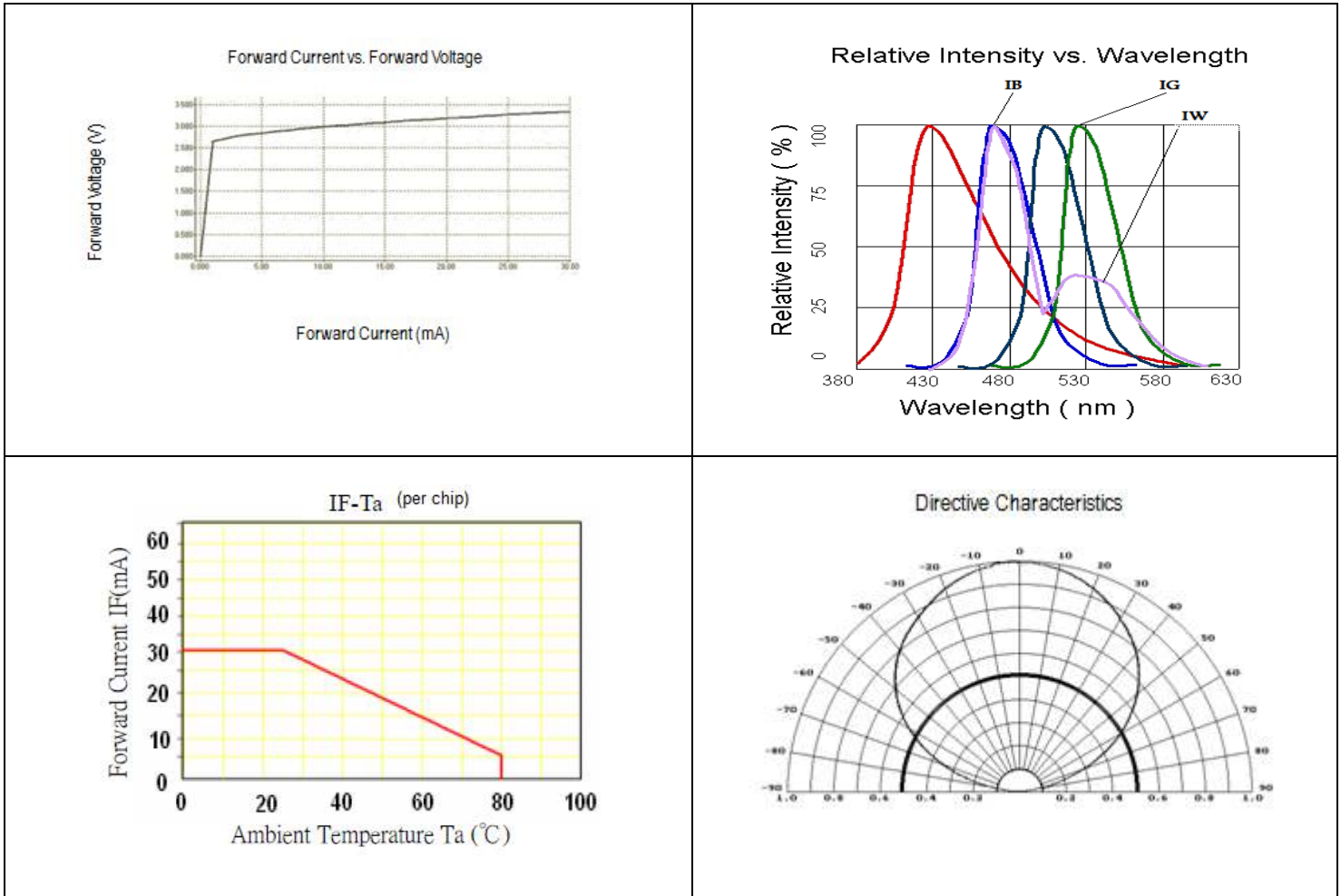
Luminous Intensity I_V @ $I_F=60mA$

Bin	Min.	Max.	Unit
14	780	1000	mcd
15	1000	1300	
16	1300	1700	
17	1700	2200	
18	2200	2800	
19	2800	3600	
20	3600	4600	
21	4600	6000	

Note:Tolerance of measurement of forward voltage: $\pm 0.05V$ Tolerance of measurement of luminous intensity: $\pm 15\%$ Tolerance of measurement of dominant wavelength: $\pm 1nm$

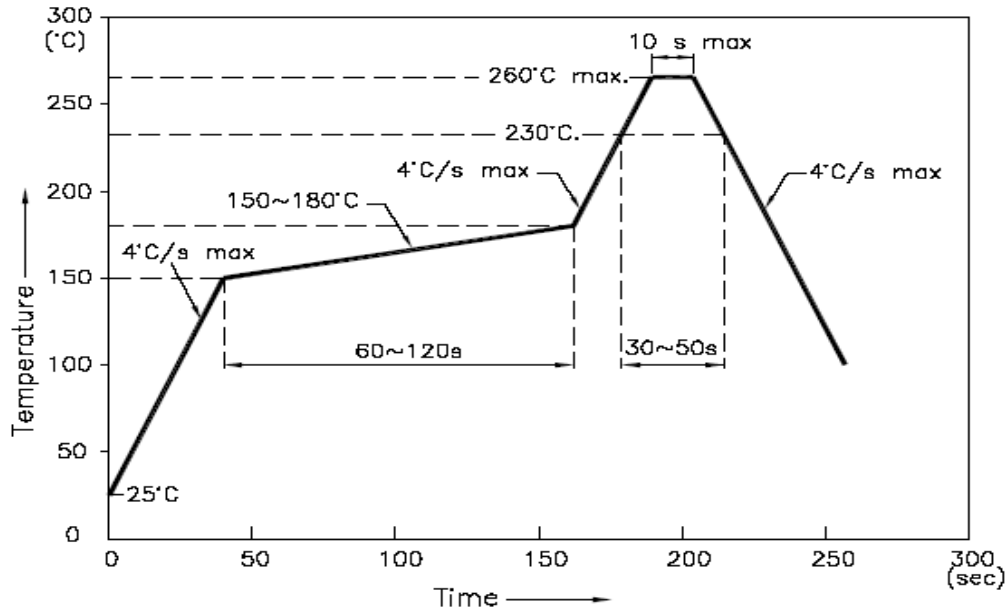
All parameters are measured by QT-BrigtheK instrument

Characteristic Curves

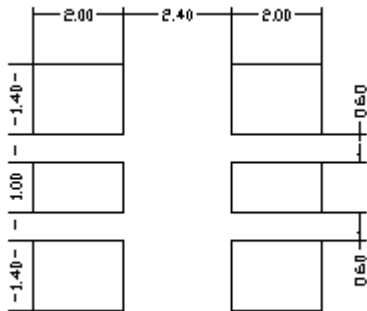


Solder Profile & Footprint

- 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

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
QBLP679E-IBK	QBLP679E-IBK	Iv=780mcd min. @ 60mA/ Color=462.5nm to 472.5nm	1,000 units
QBLP679E-IGK	QBLP679E-IGK	Iv=3600mcd min. @ 60mA/ Color=520nm to 535nm	1,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP679E-XXK_series	V1.0	02/14/2012
New format/ Amend the typical brightness	V1.1	06/25/2013
Update package 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.