

QT-Brightek Chip LED Series

1204 BI-Color LED

Part No.: QBLP613-RIG

Product: QBLP613-RIG	Date: April 18, 2012	Page 1 of 11
	Version# 1.0	

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Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Bright side view Bi-color LED
- AllnGaP technology for Red
- InGaN technology for True Green

Description:

This bright Bi-color Red and Yellow Green LED has a height profile of 1.0mm. It is ideal for keypad backlighting and status indication.

Application:

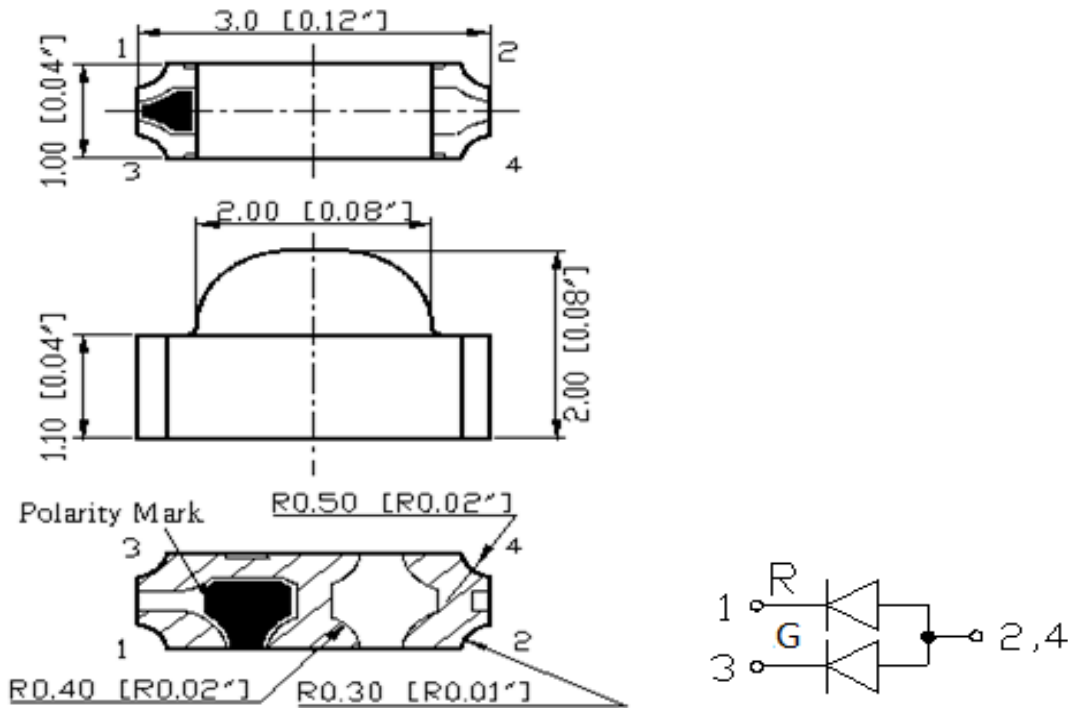
- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (T=25 °C)

Product	Color	I _F (mA)	V _F (V)		λ _D (nm)			I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP613-RIG	Red	20	2.0	2.5	630	640	650	40	75
	True Green	20	3.3	3.7	515	520	525	320	500

Absolute Maximum Rating

Material/Emitting color	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**
AllnGaP (R)	75	30	100	5	-40 ~ +80	-40 ~ +85	260
InGaN (IG)	111	30	100	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/10 @ 10KHz

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

Forward Voltage V_F for AllnGaP @ I_F=20mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

Forward Voltage V_F for InGaN @ I_F=20mA

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

Luminous Intensity I_V for Red @ $I_F=20mA$

Bin	Min.	Max.	Unit
F	40	50	mcd
G	50	63	
H	63	80	
I	80	100	
J	100	125	

Luminous Intensity I_V for Green @ $I_F=20mA$

Bin	Min.	Max.	Unit
O	320	400	mcd
P	400	500	
Q	500	630	
R	630	800	

Dominant Wavelength λ_D for Red @ $I_F=20mA$

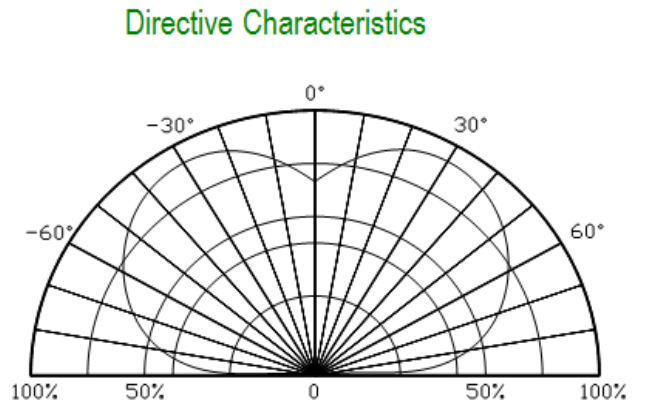
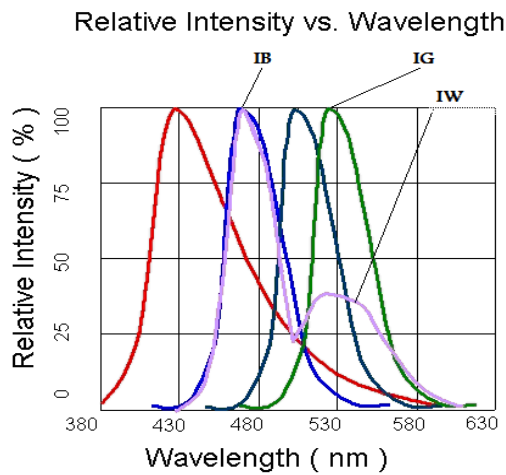
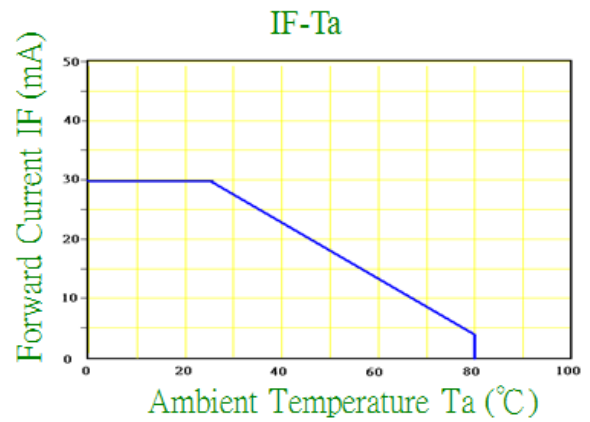
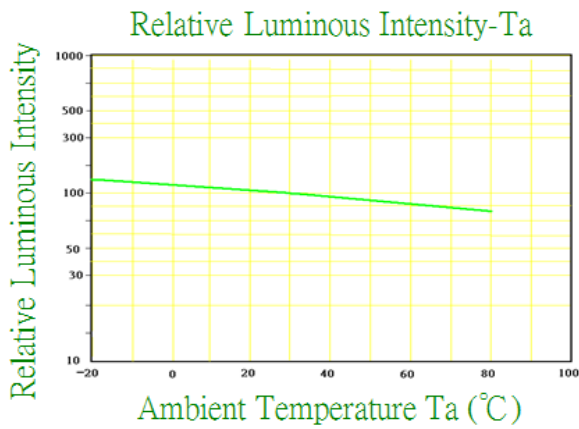
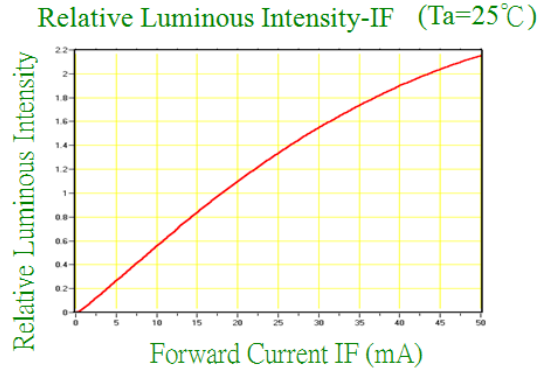
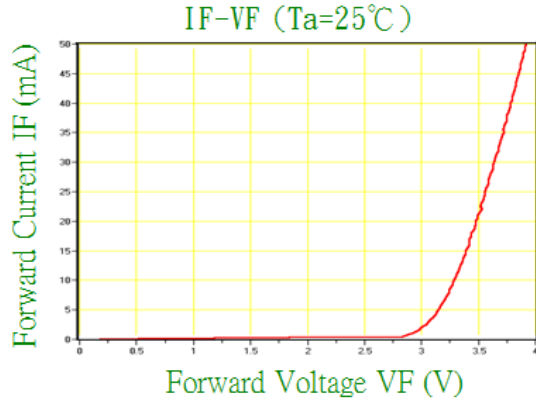
Bin	Min.	Max.	Unit
v	630	635	nm
w	635	650	

Dominant Wavelength λ_D for Green @ $I_F=20mA$

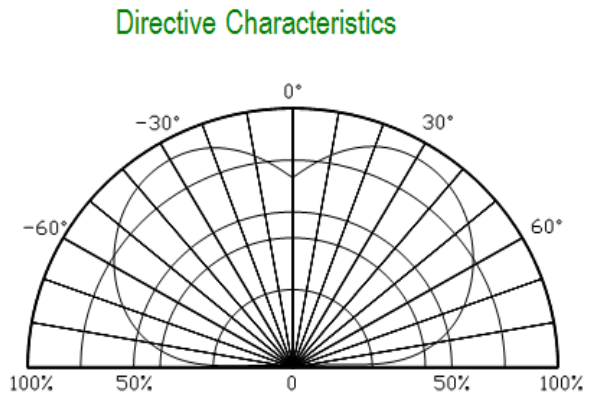
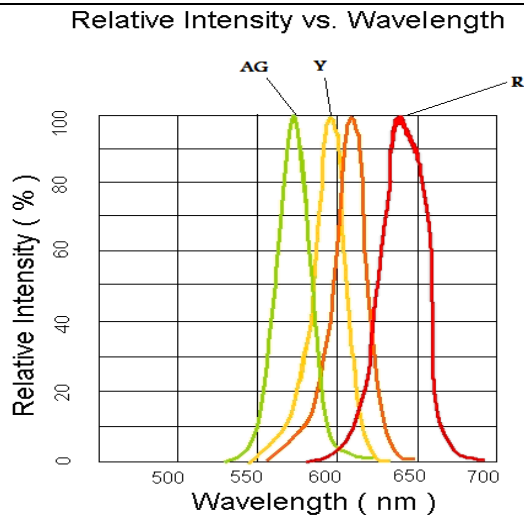
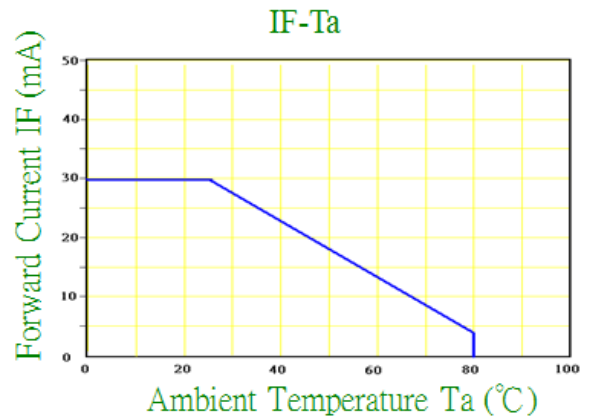
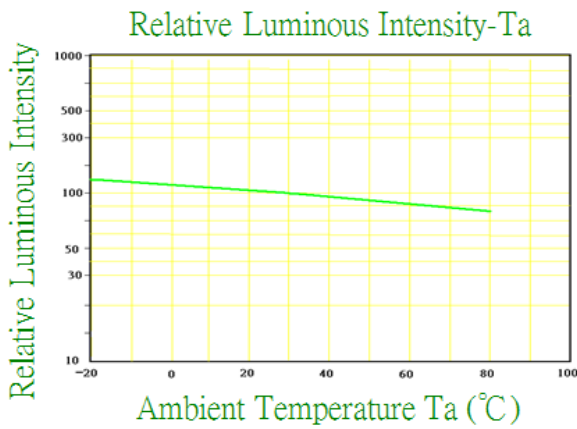
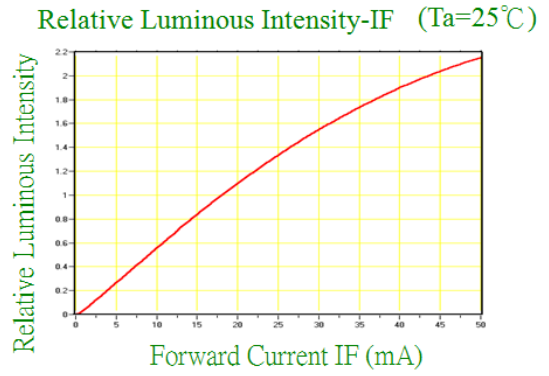
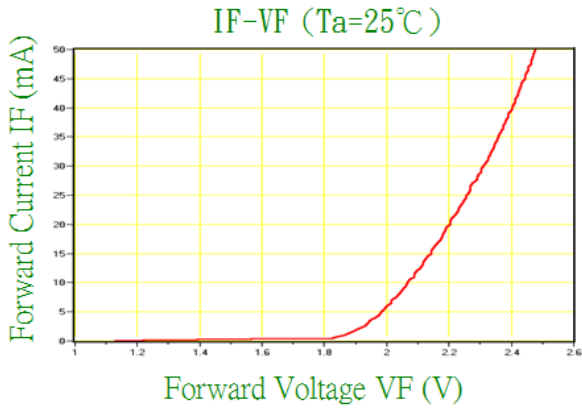
Bin	Min.	Max.	Unit
S	515	517.5	nm
T	517.5	520	
U	520	522.5	
V	522.5	525	

Characteristic Curves

InGaN



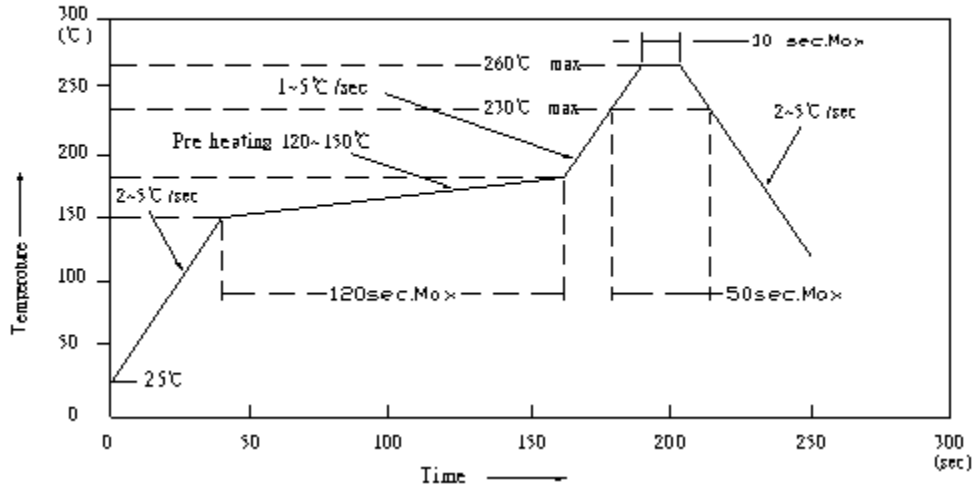
AllnGaP



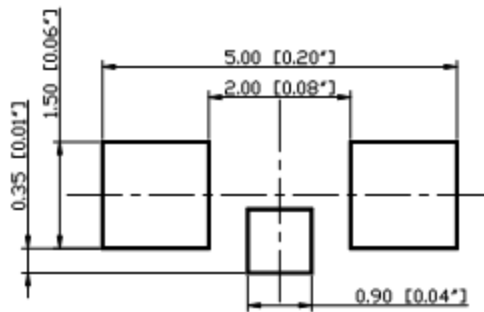
Solder Profile & Footprint

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):

**IR Reflow Soldering Profile
Lead Free Solder**



(Recommend Solder footprint)

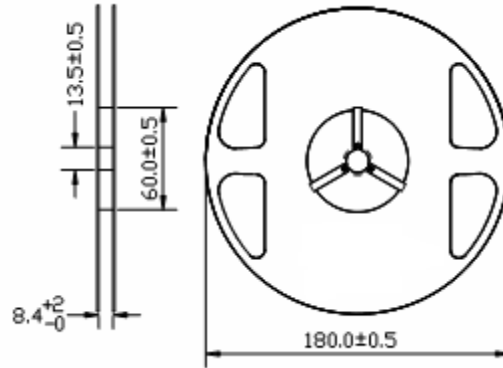


Units: mm

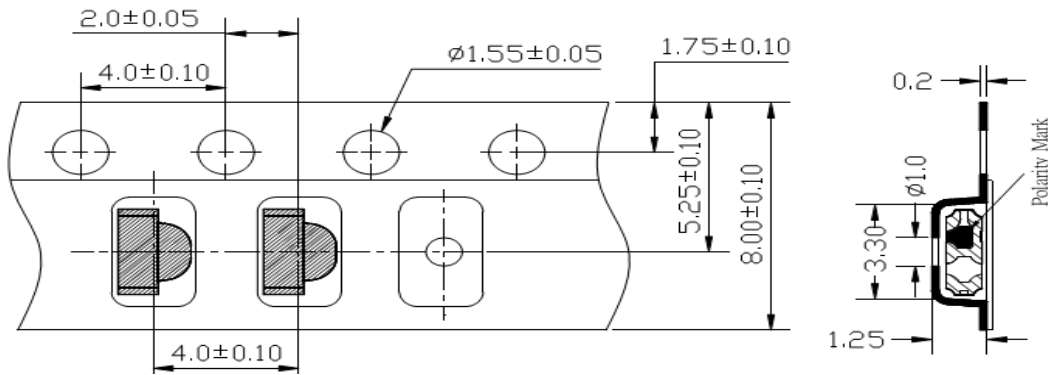
tolerance: +/- 0.1mm

Packing

Reel Dimension:



Tape Dimension:



Labeling:



Part No: _____

Customer P/N: _____

Item: _____

Q'ty: _____

Vf: _____

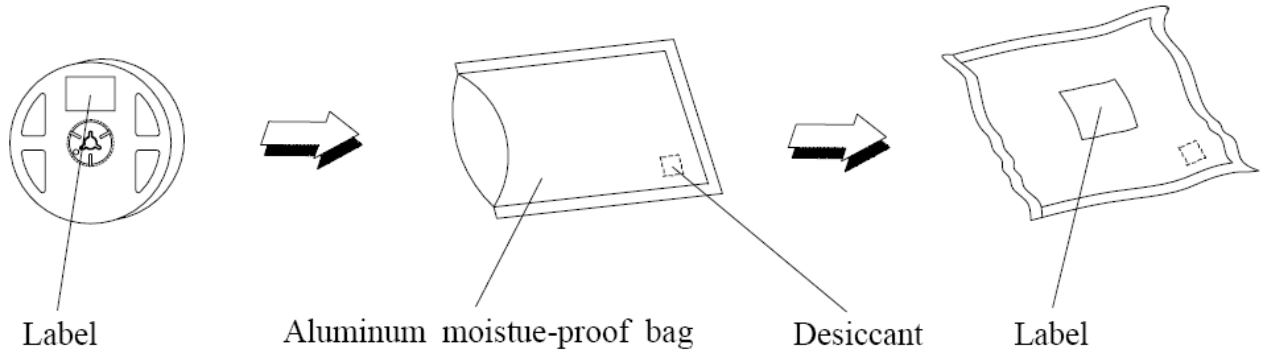
Iv: _____

VI: _____

Date: _____

Made in China

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Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP613-RIG	QBLP613-RIG	R: Iv = 75mcd Typ. @ 20mA / Color = 640nm Typ.	3,000 units
		IG: Iv = 500mcd Typ. @ 20mA / Color = 520nm Typ.	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP613-RIG	V1.0	04/18/2012

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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.