

QT-Brightek Chip LED Series

1204 BI-Color LED

Part No.: QBLP613-RIG-2790

Product: QBLP613-RIG-2790	Date: February 03, 2016	Page 1 of 12
	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:

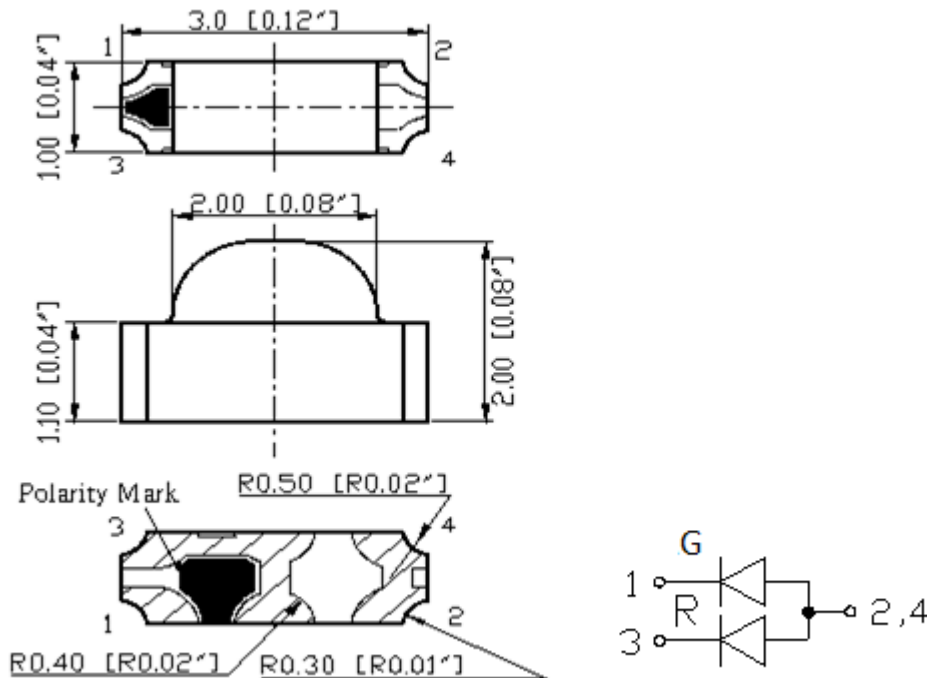
- Status indication
- Back lighting application

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

Electrical / Optical Characteristic (Ta=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-2790	Red	20	2.0	2.5	615	625	630	80	175
	True Green	20	3.1	3.7	525	530	535	200	440

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)**
AllnGaP (R)	75	30	125	5	-40 ~ +80	-40 ~ +85	260
InGaN (IG)	111	30	125	5	-40 ~ +80	-40 ~ +85	260

*Duty 1/8 @ 1KHz

** 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
I	80	100	mcd
J	100	125	
K	125	160	
L	160	200	
M	200	250	

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

Bin	Min.	Max.	Unit
M	200	250	mcd
N	250	320	
O	320	400	
P	400	500	
Q	500	630	
R	630	800	

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

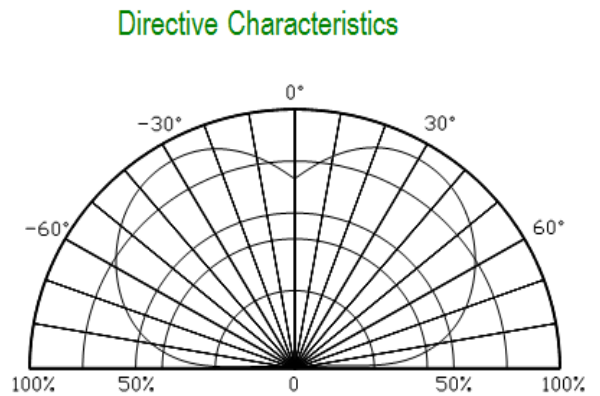
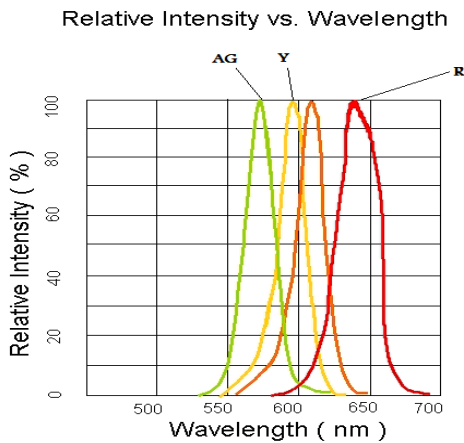
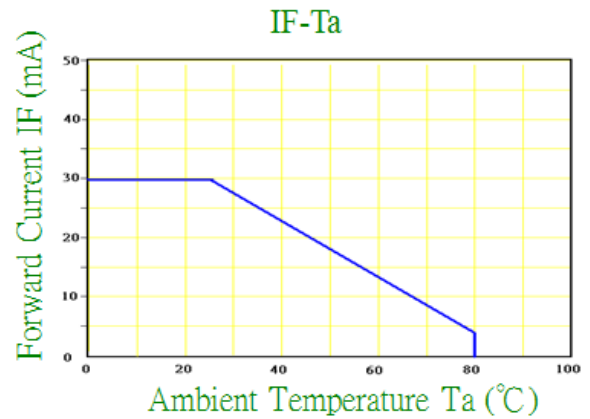
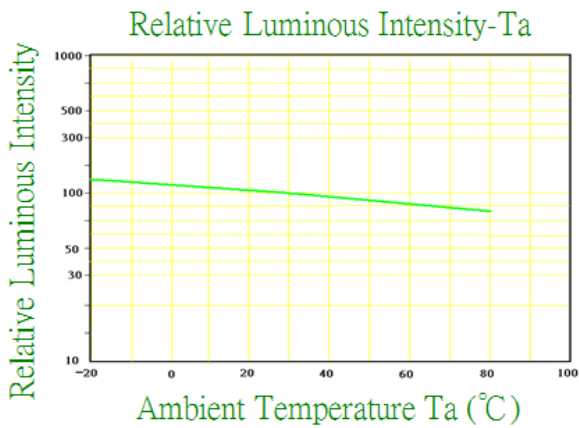
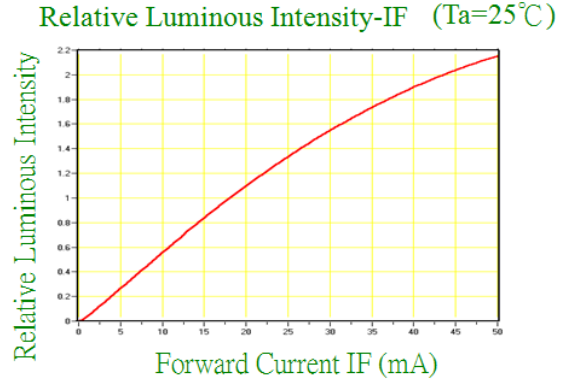
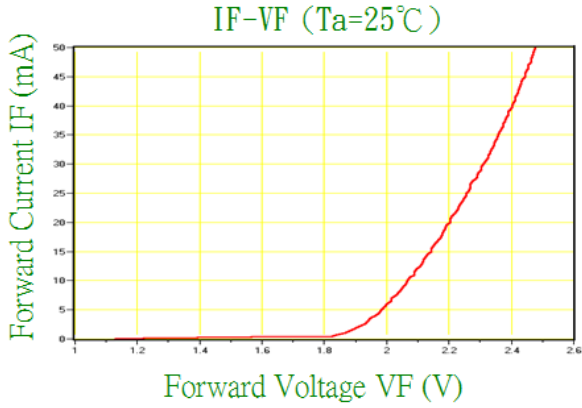
Bin	Min.	Max.	Unit
s	615	620	nm
t	620	625	
u	625	630	

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

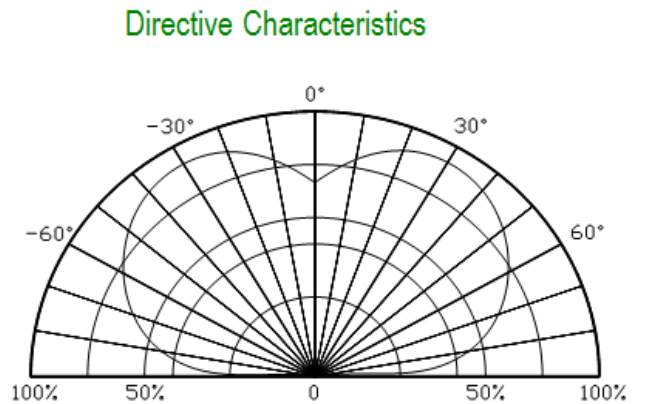
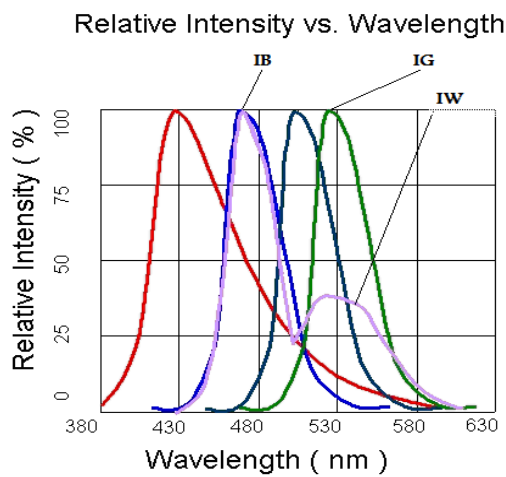
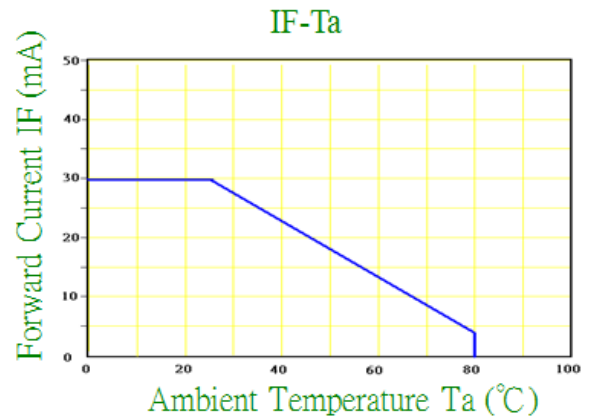
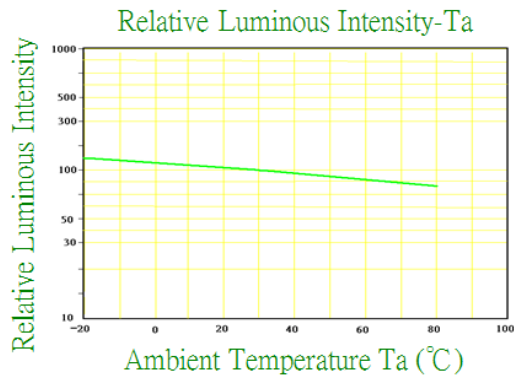
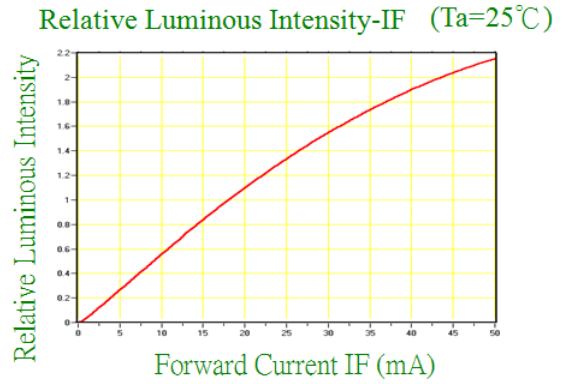
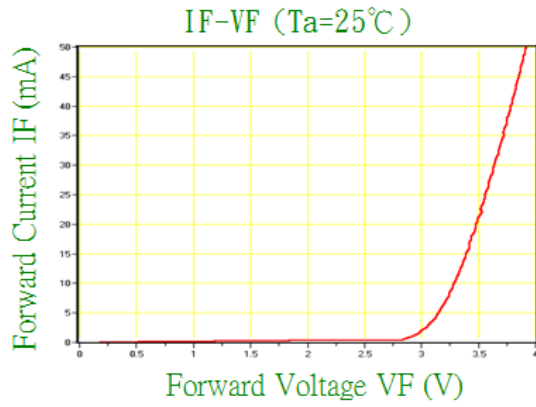
Bin	Min.	Max.	Unit
W	525	527.5	nm
X	527.5	530	
Y	530	532.5	
Z	532.5	535	

Characteristic Curves

AllnGaP

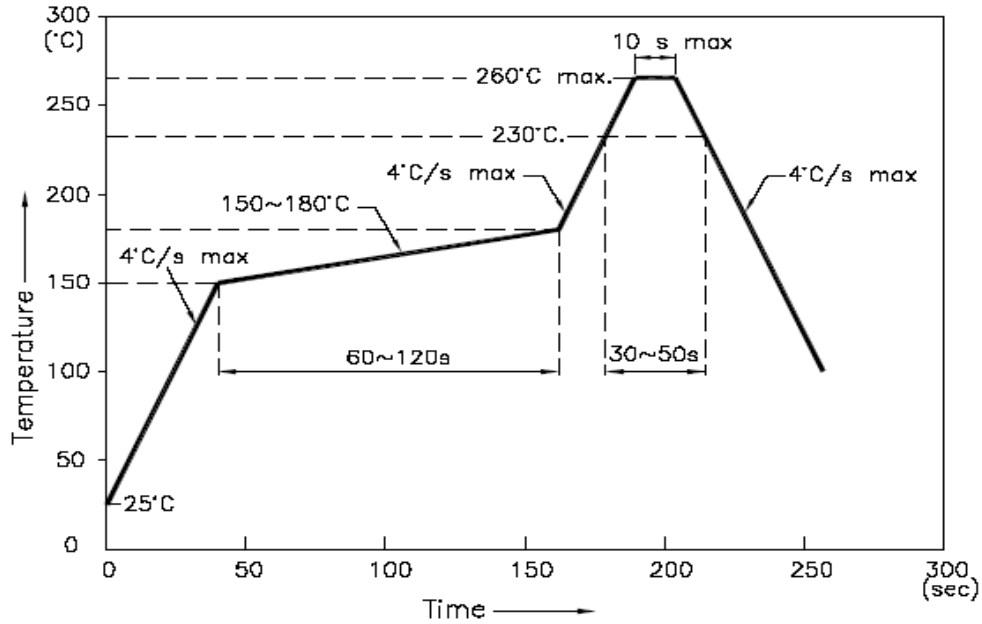


InGaN

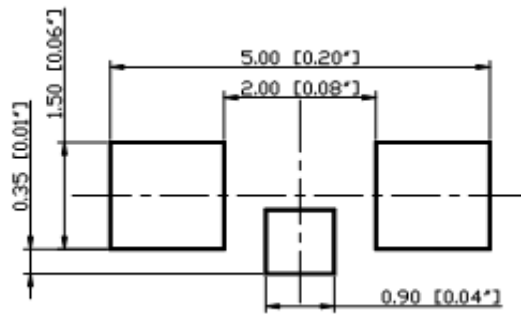


Solder Profile & Footprint

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



Recommended Pad Layout

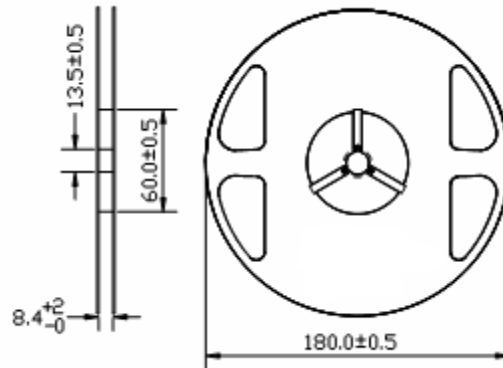


Units: mm

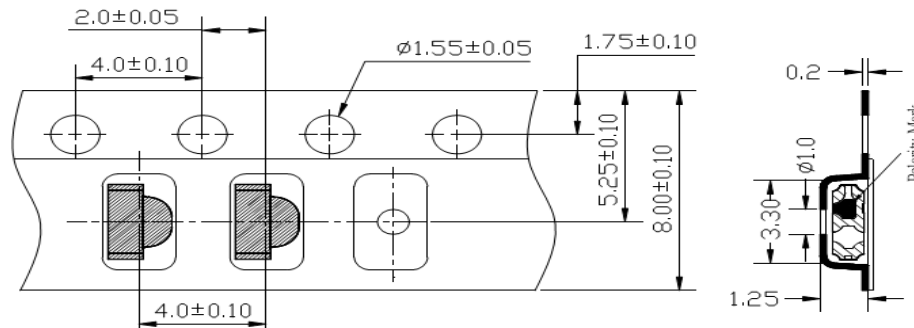
Tolerance: $\pm 0.1\text{mm}$

Packing

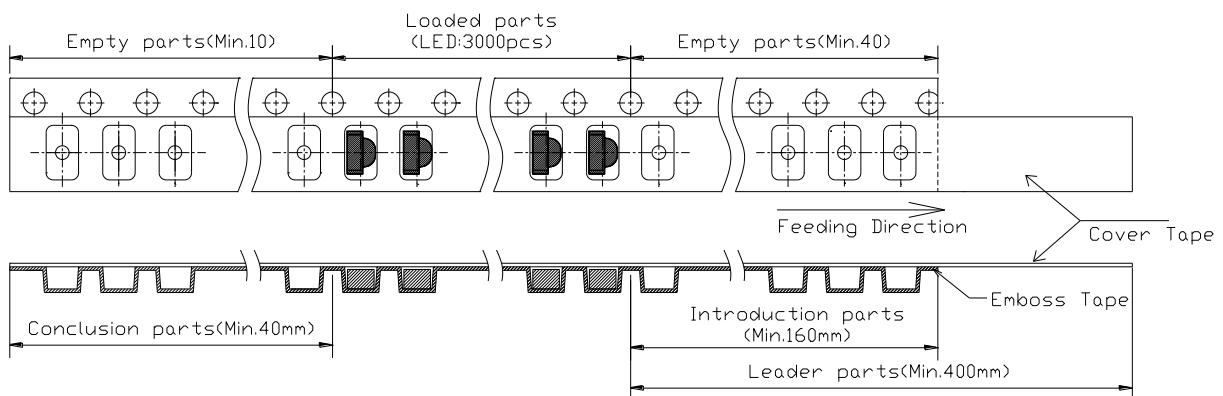
Reel Dimension:



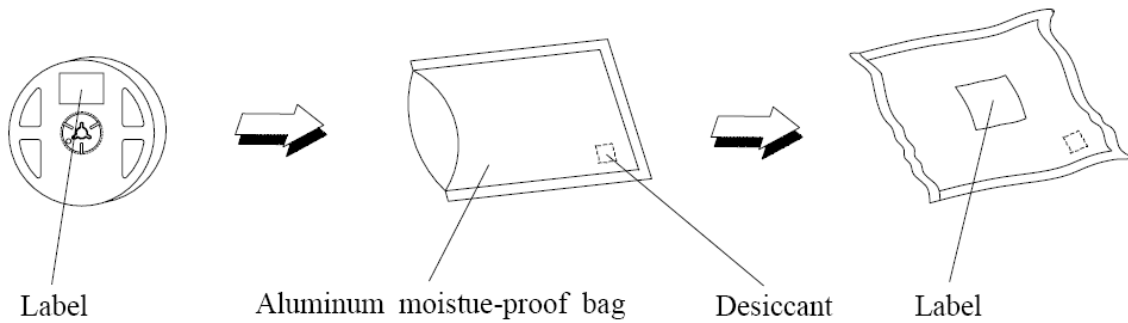
Tape Dimension:



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
QBLP613-RIG-2790	QBLP613-RIG-2790	R: Iv=175mcd typ. @ 20mA / Color=615nm to 630nm	3,000 units
		IG: Iv=440mcd typ. @ 20mA / Color=525nm to 535nm	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP613-RIG-2790	V1.0	02/03/2016

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