

QT-Brightek Chip LED Series

SMD 1210 Bi-Color LED

Part No.: QBLP650-RAG

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Introduction

Feature:

- Water clear lens
- Package in tape and reel
- Ultra bright 1210 LED package
- AllnGaP technology for Red/Yellow Green

Description:

These ultra bright 1210 LEDs have a height profile of 1.1mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

Application:

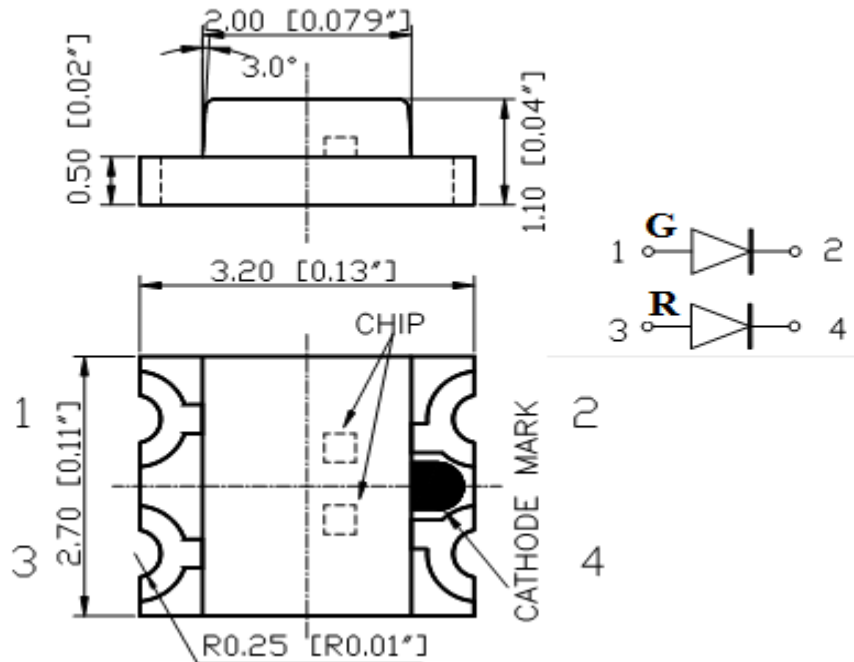
- Status indication
- Back lighting application

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.
QBLP650-RAG	Red	20	2.0	2.5	615	624	630	80	180
	Yellow Green	20	2.0	2.5	565	573	576	25	55

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)**
AllnGaP (R/AG)	75	30	125	5	-40 ~ +85	-40 ~ +100	260

*Duty 1/8 @ 1kHz

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

Forward Voltage V_F @ I_F=20mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

Luminous Intensity I_V @ I_F=20mA

Bin	Min.	Max.	Unit
D	25	32	mcd
E	32	40	
F	40	50	
G	50	63	
H	63	80	
I	80	100	
J	100	125	
K	125	160	
L	160	200	
M	200	250	

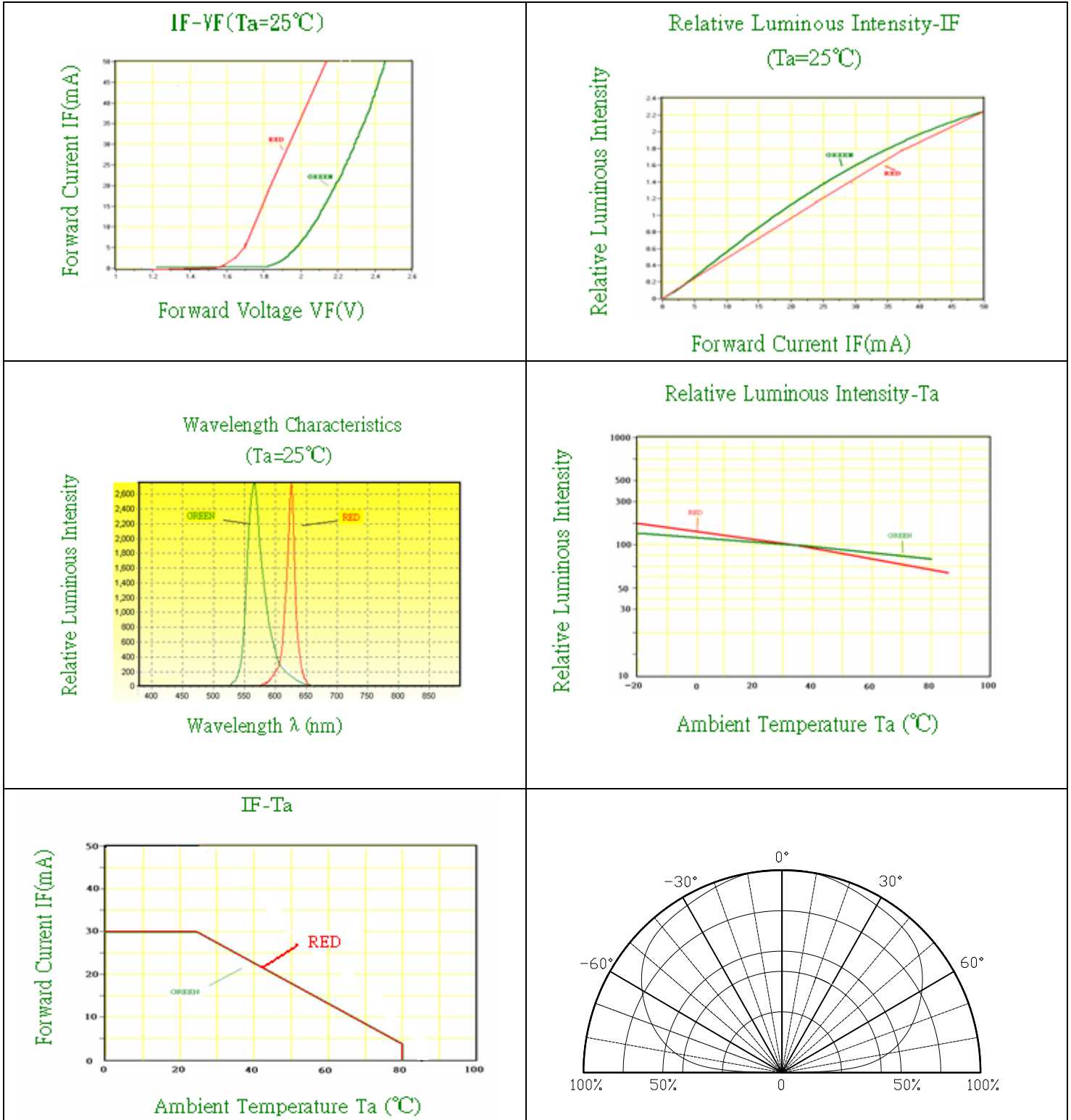
Dominant Wavelength λ_D for Yellow Green @ $I_F=20\text{mA}$

Bin	Min.	Max.	Unit
h	565	568	nm
i	568	572	
j	572	576	

Dominant Wavelength λ_D for Red @ $I_F=20\text{mA}$

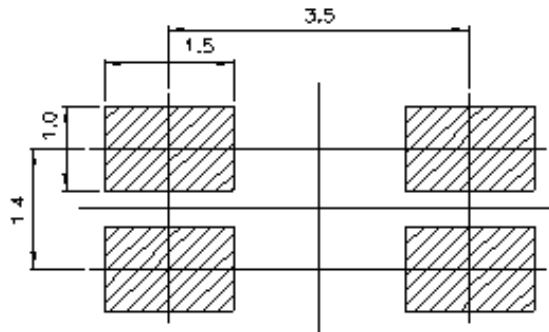
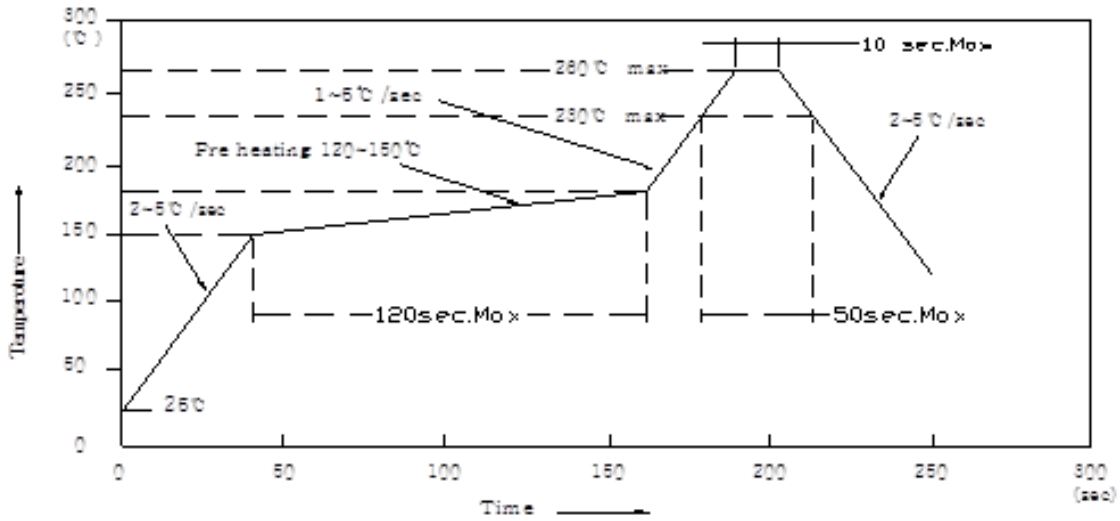
Bin	Min.	Max.	Unit
s	615	620	nm
t	620	625	
u	625	630	

Characteristic Curves



Solder Profile & Footprint:

**IR Reflow Soldering Profile
Lead Free Solder**



(Proposed Solder footprint)

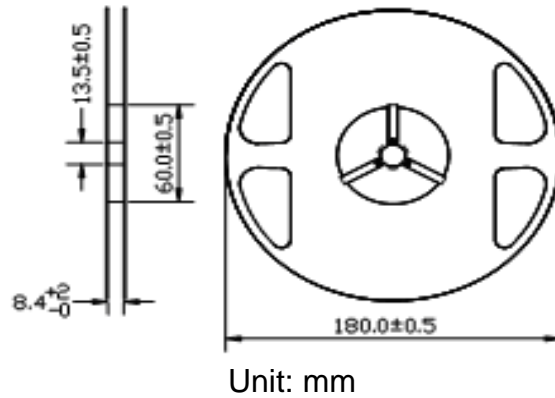
Units: mm

tolerance: +/- 0.1mm

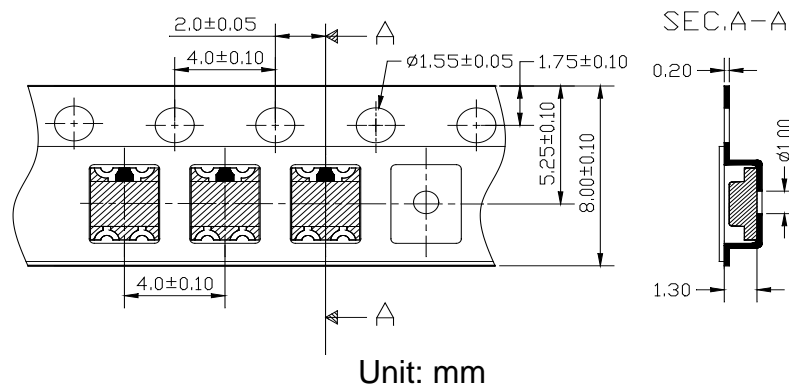
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Packing

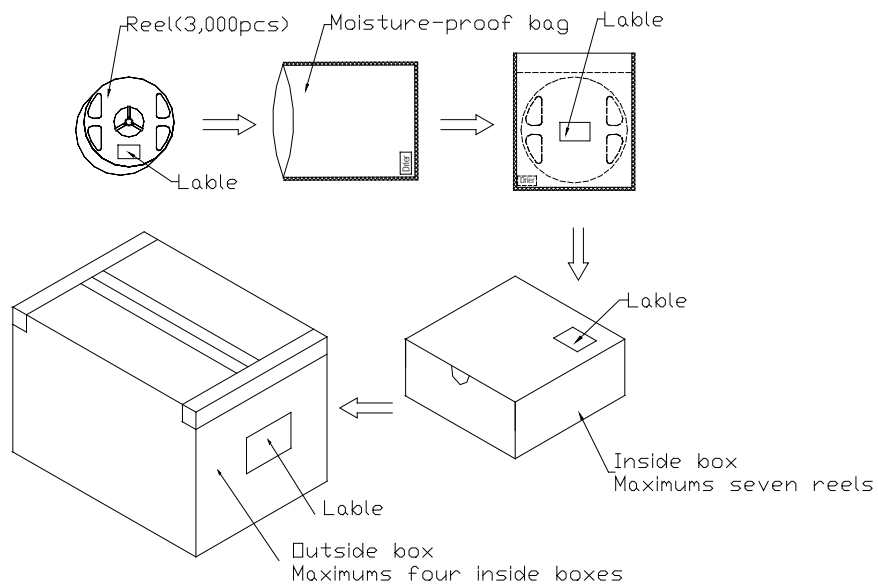
Reel Dimension:



Tape Dimension:



Packing Specifications:



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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
QBLP650-RAG	QBLP650-RAG	R: Iv = 180mcd typ. / Color = 615-630nm	3,000 units
		AG: Iv = 55mcd typ. / Color= 565-576nm	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP650-RAG	V1.0	09/20/2010
Brightness	V1.1	06/25/2011
Add Bin code/ amend brightness	V1.2	01/04/2012
Update Format	V1.3	08/27/2012

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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.