

QT-Brightek Chip LED Series**SMD 1206 Tri-Color Side View LED****Part No.: QBLP615-RGB-2943**

Table of Contents:

Introduction	3
Electrical / Optical Characteristic (Ta=25 °C)	4
Absolute Maximum Rating	4
Characteristic Curves.....	6
Solder Profile & Footprint.....	7
Packing	8
Labeling	9
Ordering Information.....	9
Revision History	10
Disclaimer	10

Introduction

Feature:

- Diffused lens
- Package in tape and reel
- 1206 Side View LED package
- InGaN technology for IB/IG
- AlInGaP technology for R
- Viewing angle 150°

Description:

These 1206 side view LEDs have a height profile of 1.0mm. Combination of higher packing density and small footprint, these LEDs are ideal for indicator and backlighting, flat backlight for LCD.

Application:

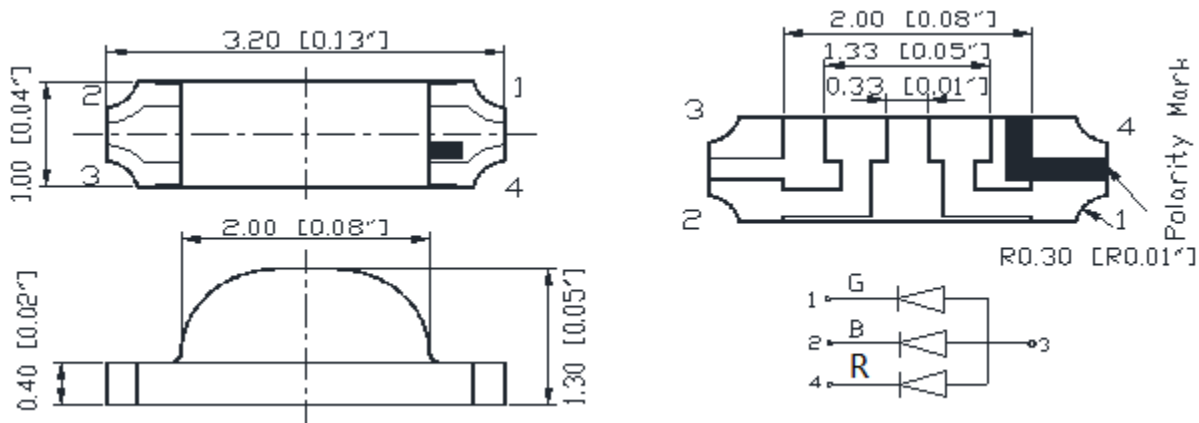
- Telecommunication
- Back lighting application
- LCD backlighting

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.
QBLP615-RGB-2943	Red	20	2.0	2.5	615	620	630	100	190
	True Green		3.1	3.7	520	525	530	320	620
	Blue		3.1	3.7	465	470	475	63	110

Luminous Intensity Tolerance is ±5%

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

*Duty 1/8 @ 1kHz

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

Luminous Intensity I_V For Red @ I_F=20mA

Bin	Min.	Max.	Unit
H2	100	160	mcd
I2	160	250	

Luminous Intensity I_V For Green @ I_F=20mA

Bin	Min.	Max.	Unit
K1	320	500	mcd
L1	500	800	

Luminous Intensity I_V For Blue @ I_F=20mA

Bin	Min.	Max.	Unit
H2	100	160	mcd
I2	160	220	

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

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

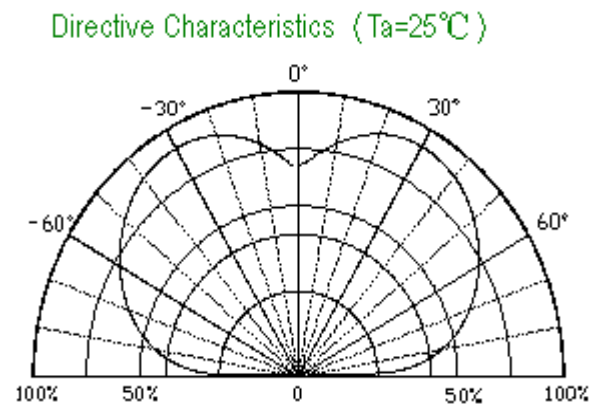
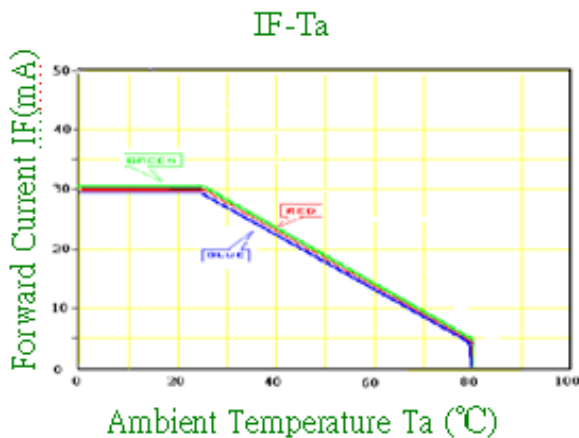
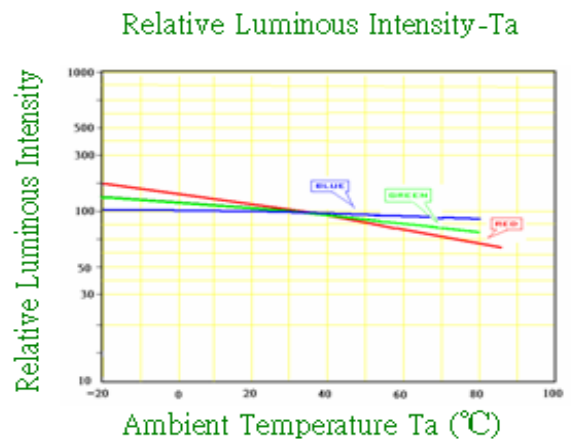
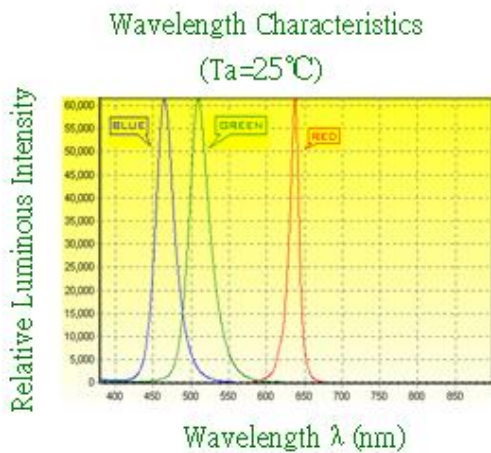
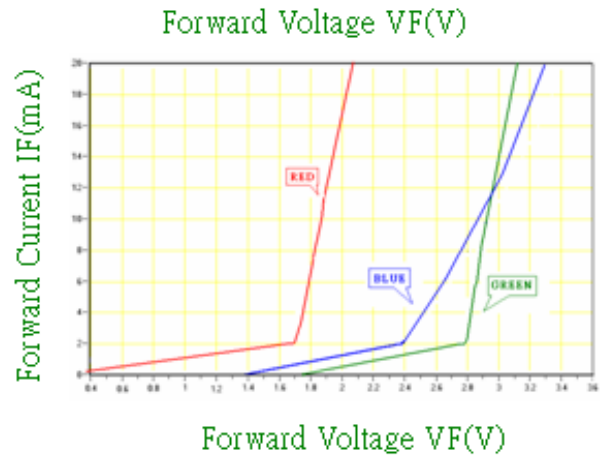
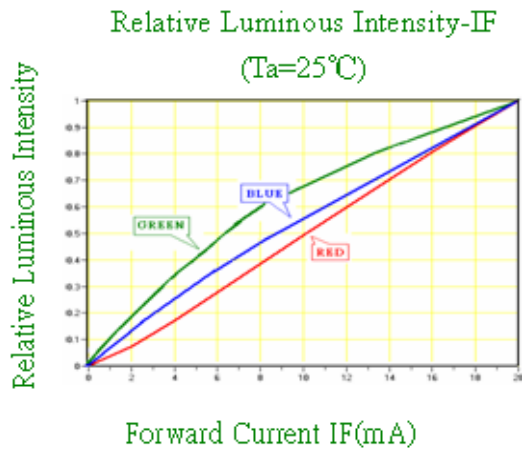
Dominant Wavelength λ_D for Green @ $I_F=20mA$

Bin	Min.	Max.	Unit
U	520	522.5	nm
V	522.5	525	
W	525	527.5	
X	527.5	530	

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

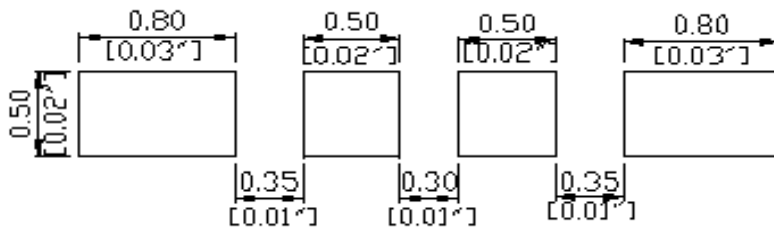
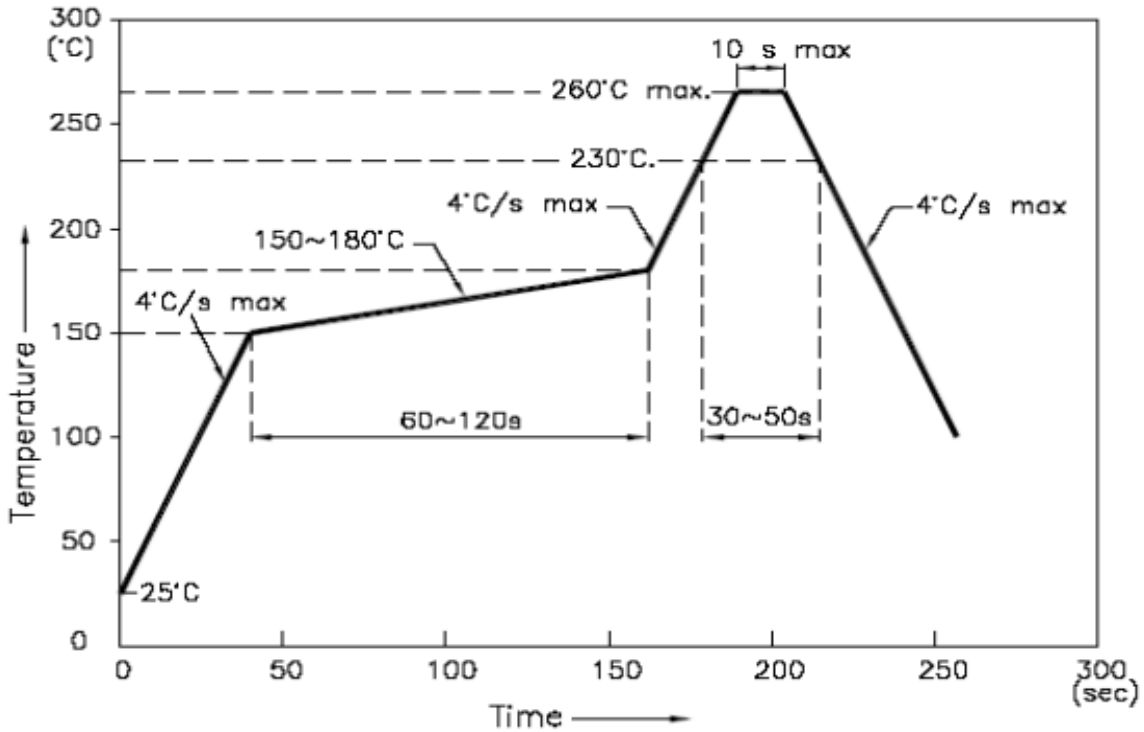
Bin	Min.	Max.	Unit
G	465	467.5	nm
H	467.5	470	
I	470	472.5	
J	472.5	475	

Characteristic Curves



Solder Profile & Footprint

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



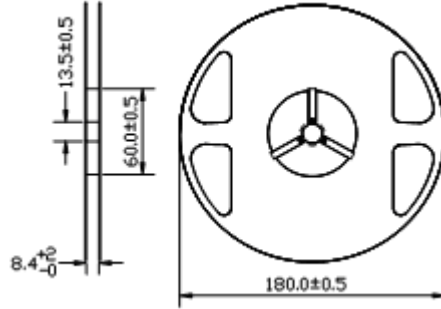
(Proposed Solder footprint)

Units: mm

tolerance: +/- 0.1mm

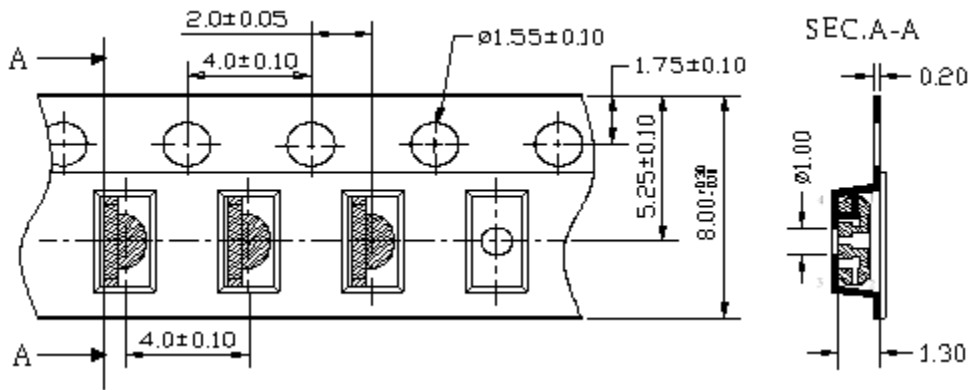
Packing

Reel Dimension:



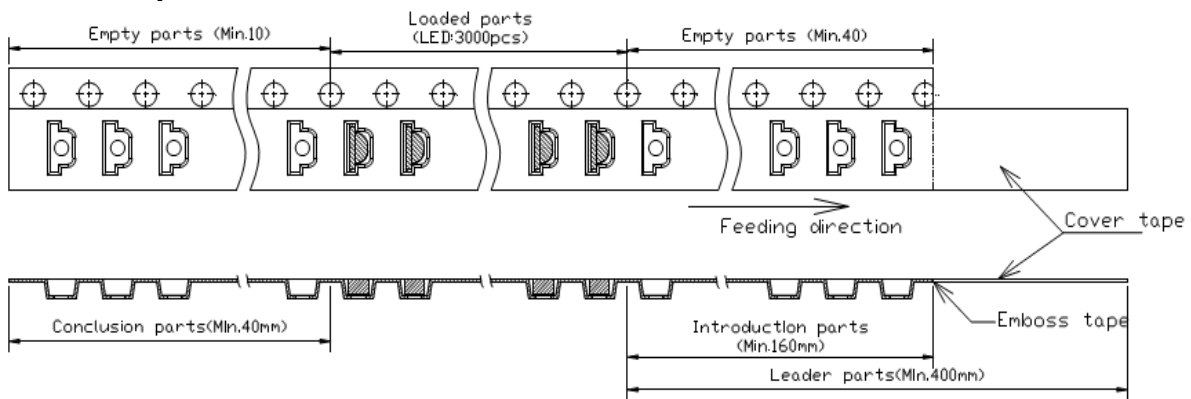
Unit: mm

Tape Dimension:

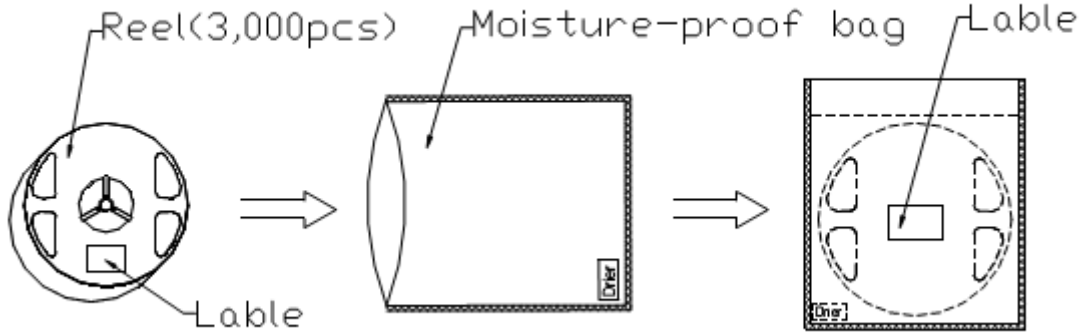


Unit: mm

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
QBLP615-RGB-2943	QBLP615-RGB-2943	R: I _v =190 mcd typ. / Color: 615nm to 630nm	3,000 units
		IG: I _v =620 mcd typ. / Color: 520nm to 320nm	
		IB: I _v =110mcd typ. / Color: 465nm to 475nm	

Revision History

Description:	Revision #	Revision Date
New Release of QBLP615-RGB-2943	V1.0	11/08/2019
Update luminous intensity bin	V1.1	05/19/2020

Disclaimer

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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.