

# **QT-Brightek Chip LED Series**

## **SMD 1206 LED**

**Part No.: QBLP650-YG1-2943**

**2943: Diffused Lens Version**

**YG1: Green (GaP, 566nm to 575nm)**

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## Introduction

### Feature:

- White diffused lens
- Package in tape and reel
- 1206 LED package
- GaP technology
- Viewing Angle: 140 deg typ.

### Description:

These ultra bright 1206 LEDs have a height profile of 0.8mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

### Application:

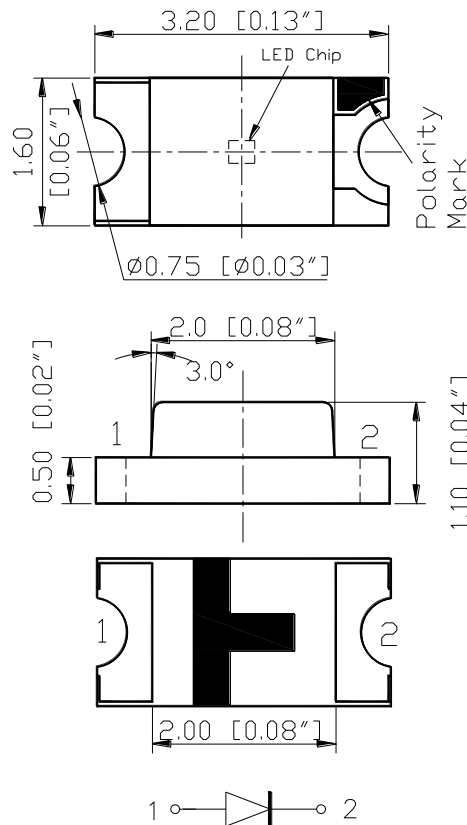
- Status indication
- Back lighting application

### Certification & Compliance:

- ISO9001
- RoHS Compliant



## Dimension:



Units: mm / tolerance = +/-0.1mm

### Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)			λ <sub>D</sub> (nm)			λ <sub>P</sub> (nm)	I <sub>V</sub> (mcd)		
			Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.	Typ.	Max.
QBLP650-YG1-2943	Green	20	1.7	2.0	2.5	566	570	575	565	8.0	18	32

### Absolute Maximum Rating

Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
GaP	75	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<sub>F</sub> @ I<sub>F</sub>=20mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

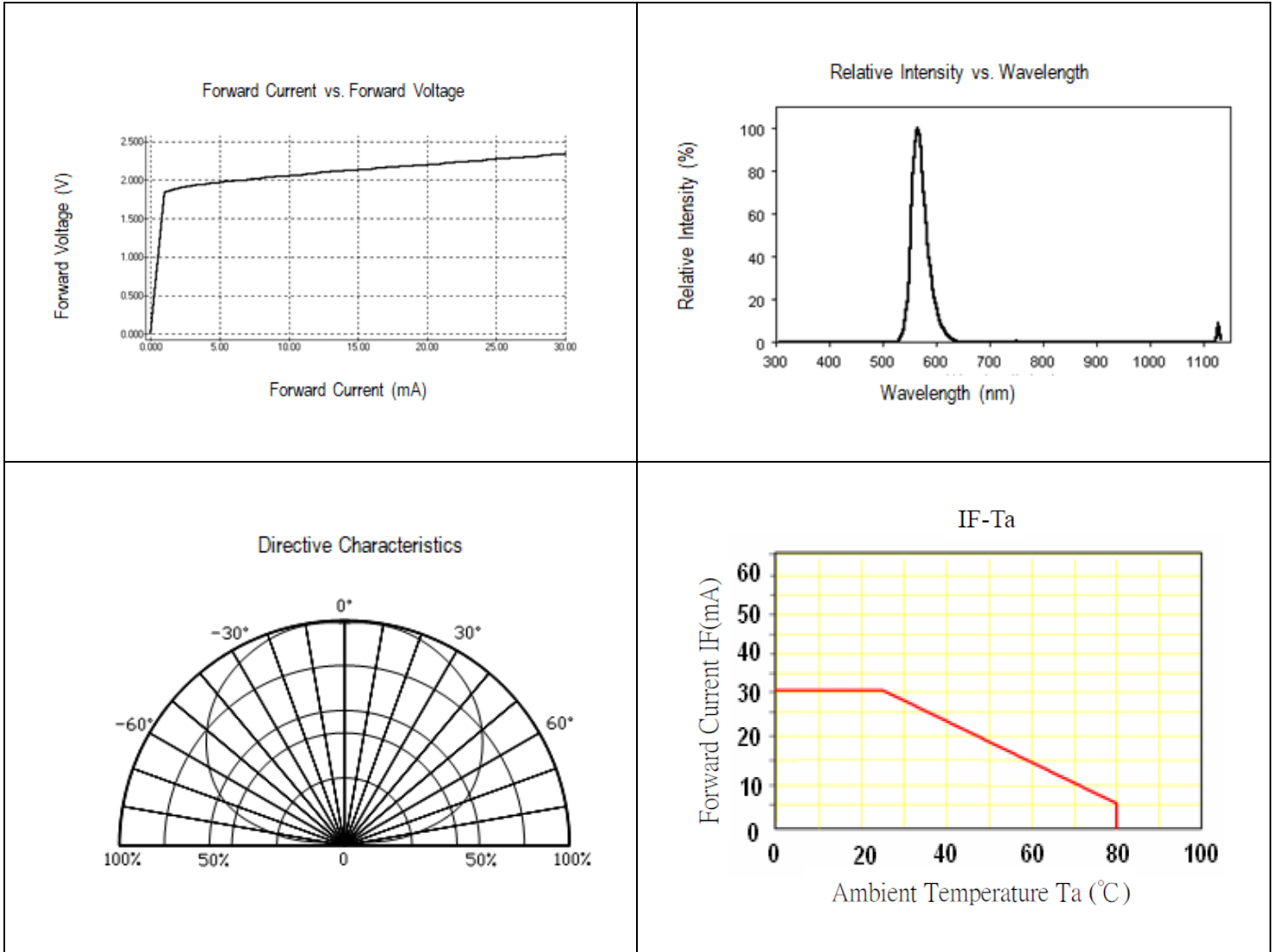
### Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=20mA

Bin	Min.	Max.	Unit
9	8.0	12.5	mcd
A	12.5	16	
B	16	20	
C	20	25	
D	25	32	

### Dominant Wavelength λ<sub>D</sub> @ I<sub>F</sub>=20mA

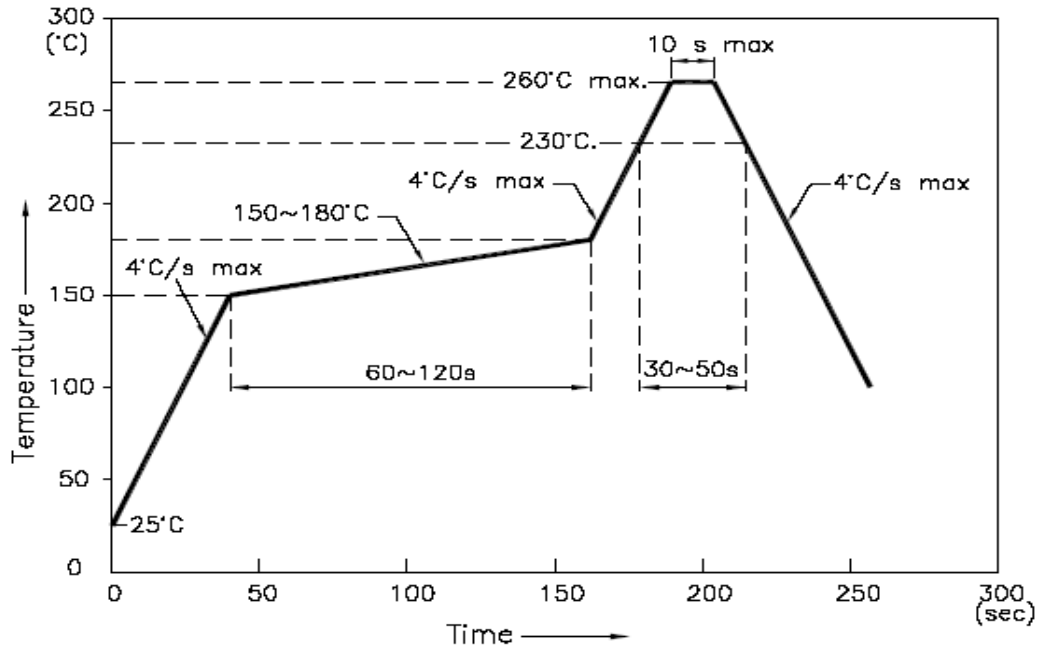
Bin	Min.	Max.	Unit
H	566	569	nm
I	569	572	
J	572	575	

### Characteristic Curves

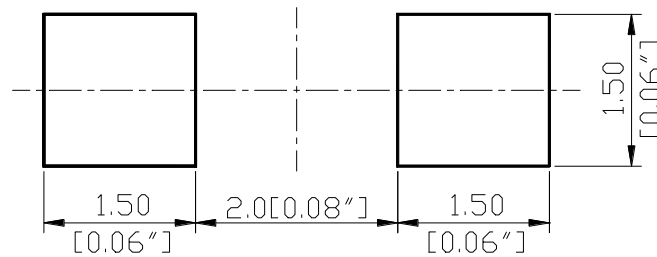


## Solder Profile & Footprint

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



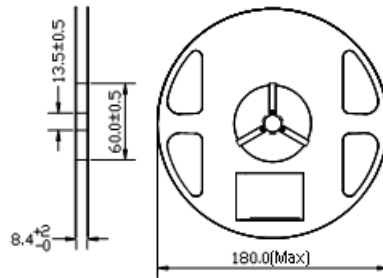
### Recommended Pad Layout



Units: mm

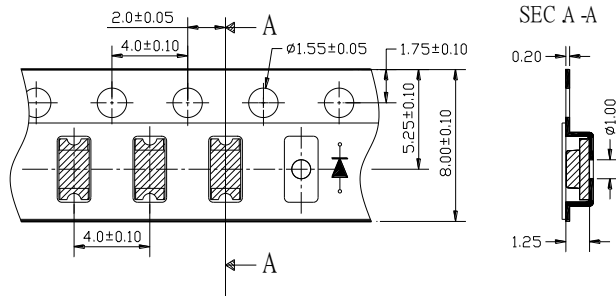
## Packing

Reel Dimension:



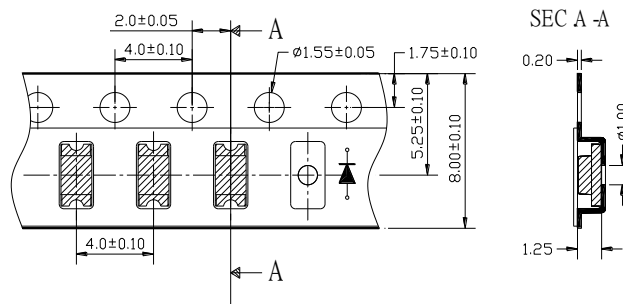
(Unit: mm)

Tape Dimension:

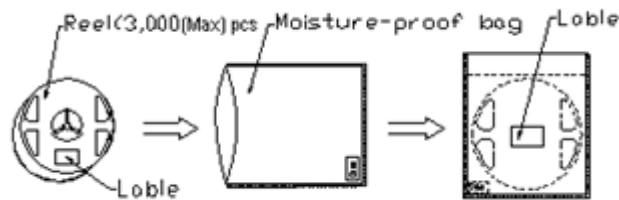


(Unit: mm)

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
QBLP650-YG1-2943	QBLP650-YG1-2943	Iv=18mcd typ. @ I <sub>F</sub> =20mA / Color=566nm to 575nm	3,000 units

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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP650-YG1-2943	V1.0	10/11/2021
Fix typo on the datasheet description and drawing	V1.1	12/10/2021



## 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.