

# **QT-Brightek Side View LED Series**

## **0602 Side View LED**

**Part No.: QBLP617-YG**

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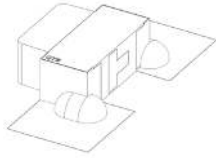
**Table of Contents:**

Introduction .....	3
Electrical / Optical Characteristic (Ta=25 °C) .....	4
Absolute Maximum Rating .....	4
Characteristic Curves.....	5
Solder Profile & Footprint.....	6
Packing .....	8
Labeling .....	9
Ordering Information .....	9
Revision History .....	10
Disclaimer .....	10

## Introduction

### Feature:

- Water clear lens
- Package in tape and reel
- Side view (right angle) 0602 LED package
- GaP technology
- Viewing Angle: 140° typ.



### Description:

These ultra bright side view 0602 LEDs have a height profile of 0.6mm. With higher packing density and smaller footprint, these LEDs are ideal for smaller equipment and miniature application.

### Application:

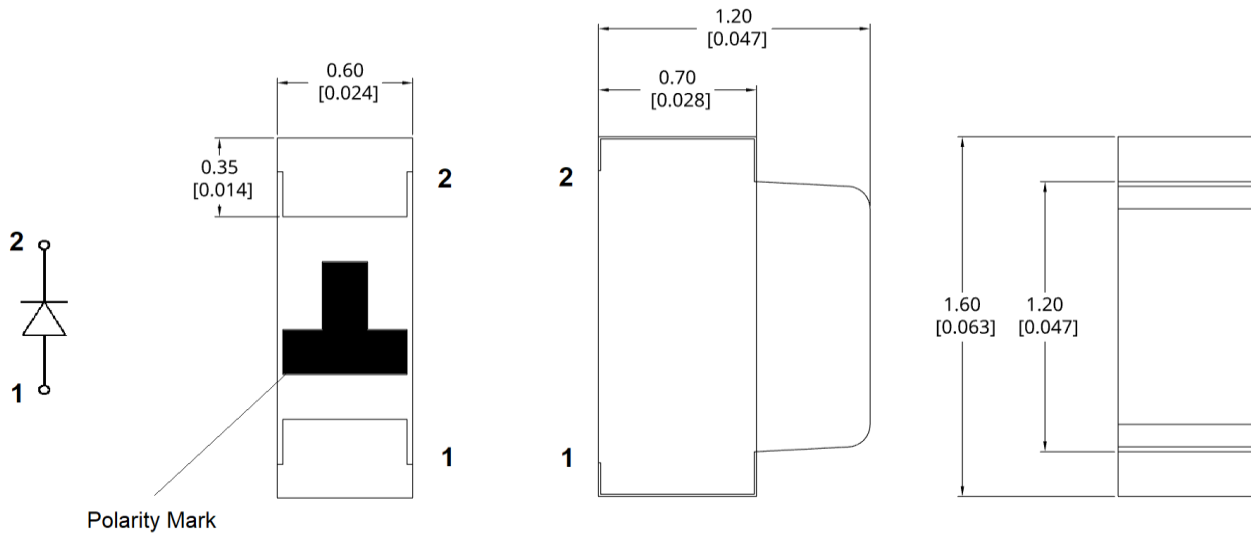
- Status indication
- Back lighting application
- General Use

### 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)			I <sub>V</sub> (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP617-YG	Yellow Green	20	2.0	2.5	565	570	576	5.0	15

### 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 to +80	-40 to +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

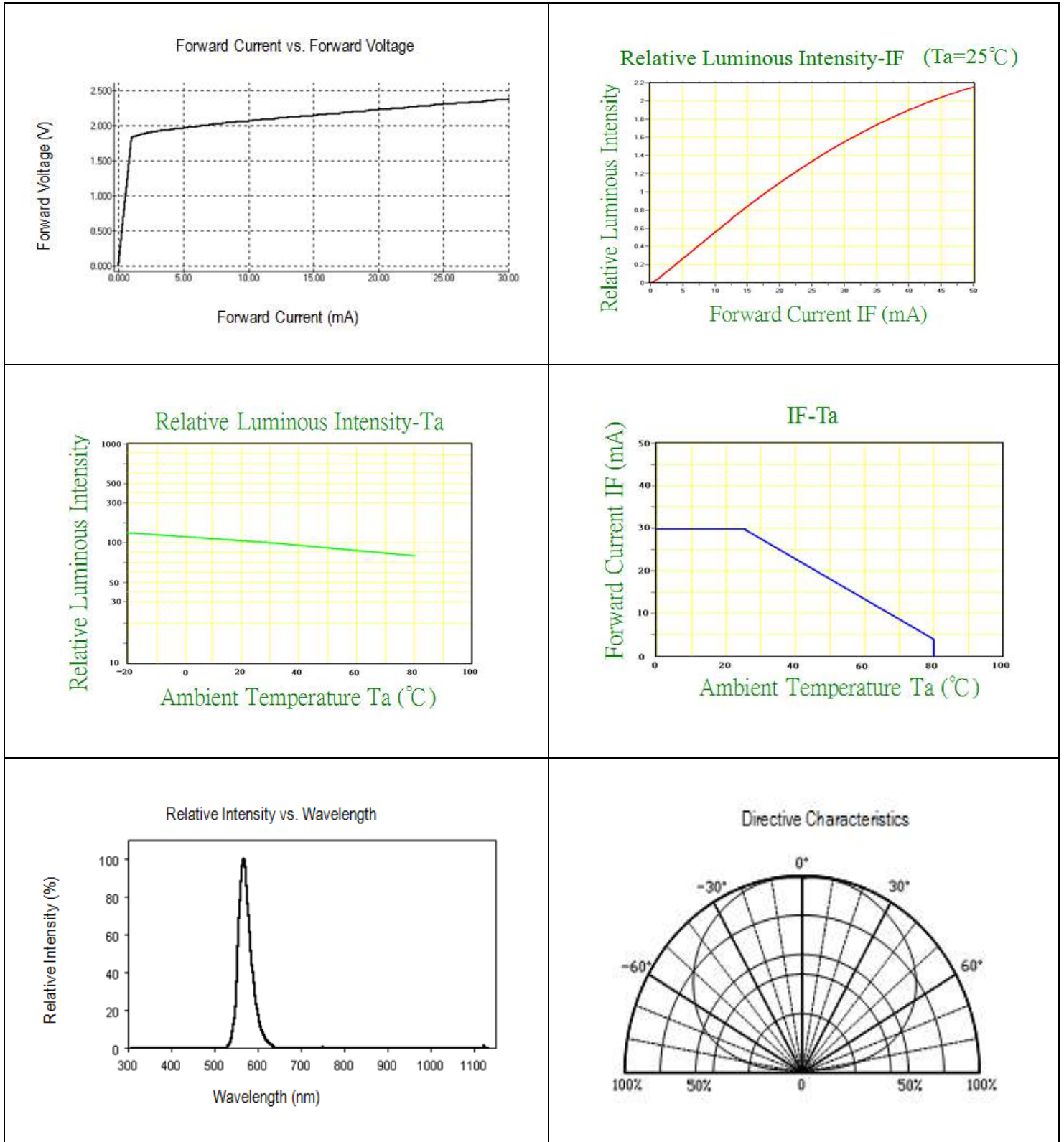
### Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=20mA

Bin	Min.	Max.	Unit
8	5.0	8.0	mcd
9	8.0	12.5	
A	12.5	16	
B	16	20	
C	20	25	

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

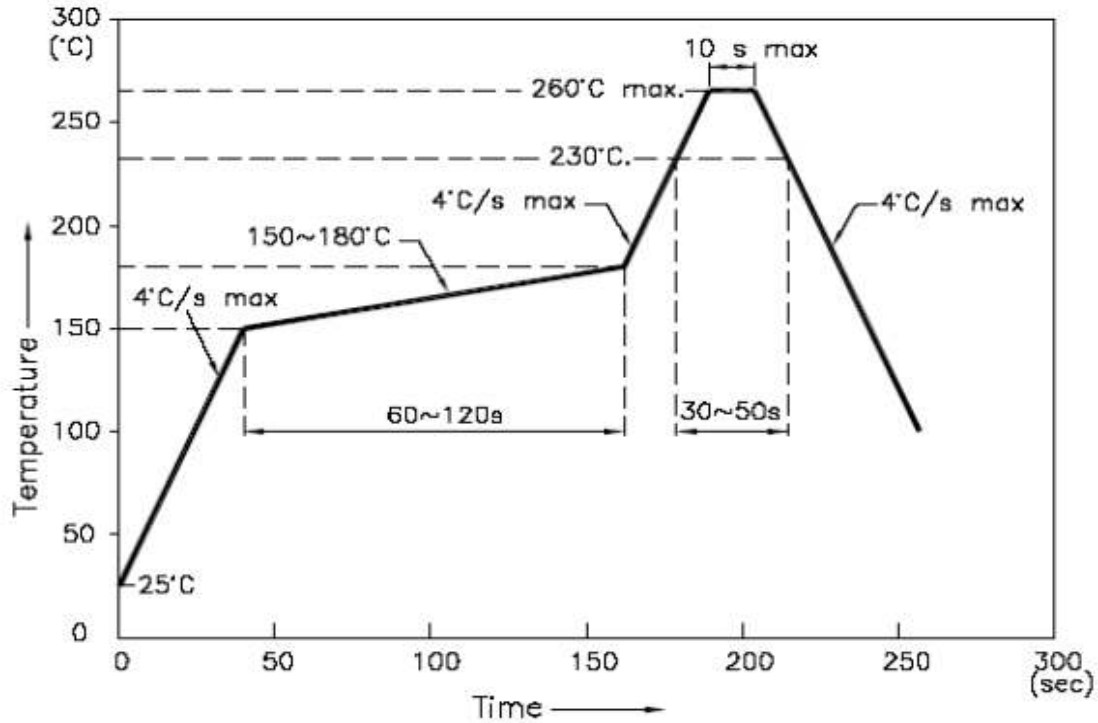
Bin	Min.	Max.	Unit
h	565	568	nm
i	568	572	
j	572	576	

## Characteristic Curves

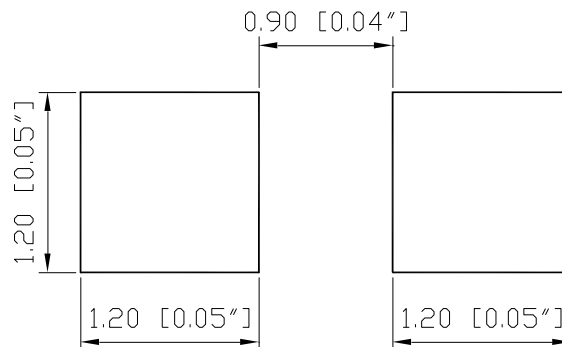


## Solder Profile & Footprint

- Recommended tin solder specifications: melting temperature in the range of 178~192 °C
- The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



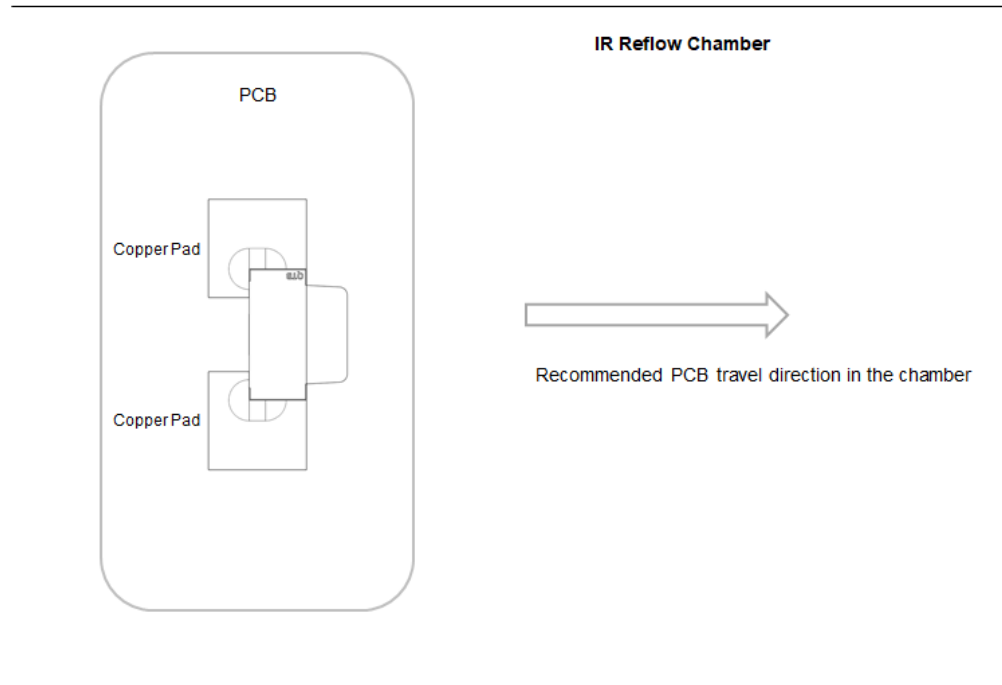
### Recommended Pad Layout



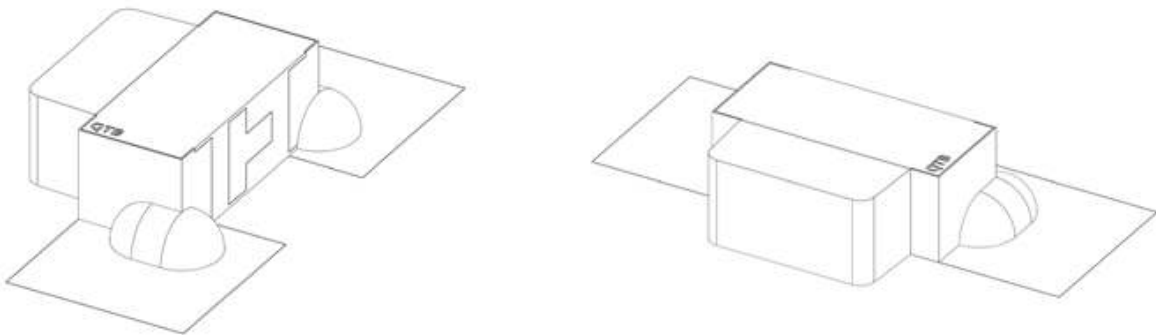
Units: mm

Tolerance: ± 0.1mm

- The recommended IR reflow direction for a right angle (side view) SMD led is illustrated below to insure the solder on each lead melts simultaneously during the SMT reflow soldering process.



## Mounting the LED on PCB

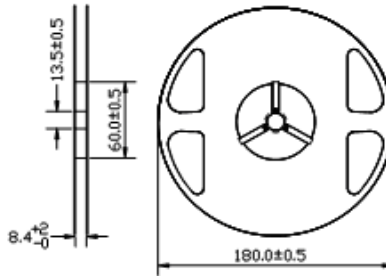


Note: The amount of solder paste applied as shown in the picture is just for illustration purpose only. When mounting and soldering the LEDs, avoid excess solder paste from overflowing onto or near the epoxy lens.

Product: QBL617-YG	Date: April 11, 2022	Page 7 of 11
	Version# 1.1	

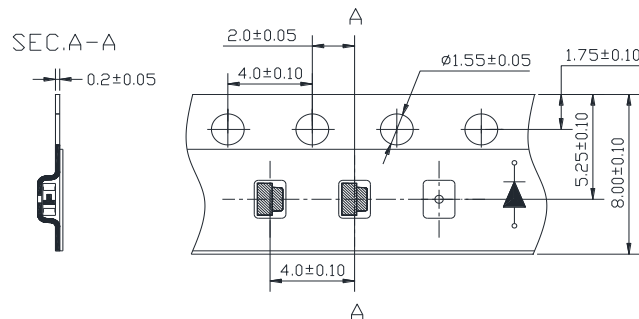
## Packing

### Reel Dimension:



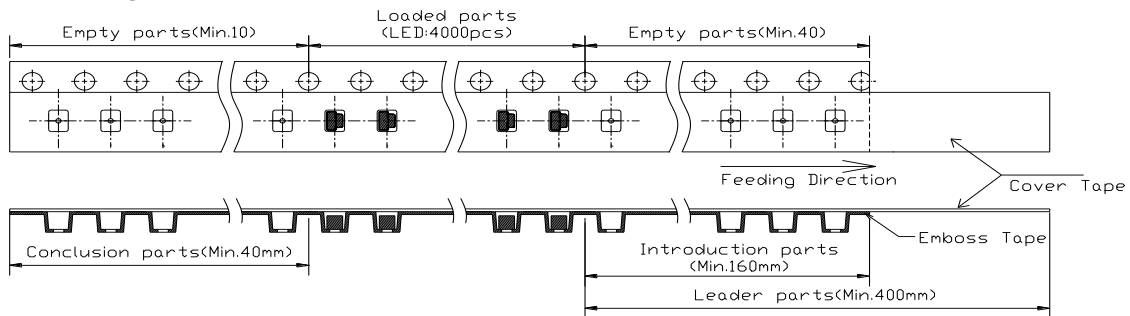
Unit: mm

### Tape Dimension:

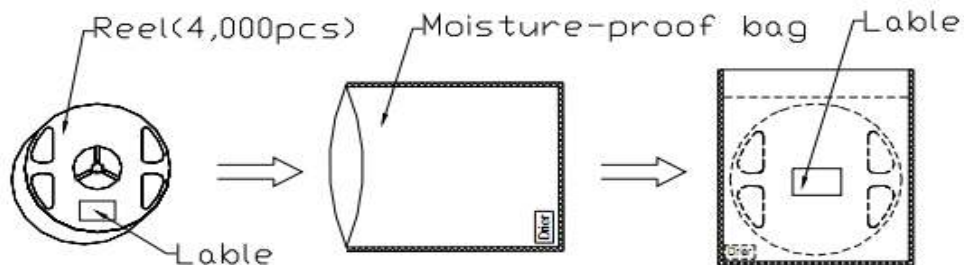


Unit: mm

### 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
QBLP617-YG	QBLP617-YG	Iv=15mcd typ. @ I <sub>F</sub> =20mA, λ <sub>D</sub> =565nm ~ 576nm	4,000 units

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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP617-YG	V1.0	09/25/2014
Add recommend SMT and mounting suggestion / Optimize drawing dimensions in the datasheet	V1.1	04/11/2022



## 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.

Product: QBL617-YG	Date: April 11, 2022	Page 11 of 11
	Version# 1.1	