

# **QT-Brightek Chip LED Series**

## **0603 IR LED**

**Part No.: QBLP601-IR4**

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## Introduction

### Feature:

- Water clear lens
- Package in tape and reel
- 0603 LED package
- AlGaAs technology
- Viewing Angle = 140 Deg

### Description:

These ultra bright 0603 LEDs have a height profile of 0.60mm. With higher packing density and smaller footprint, these LEDs are ideal for smaller equipment and miniature application.

### Application:

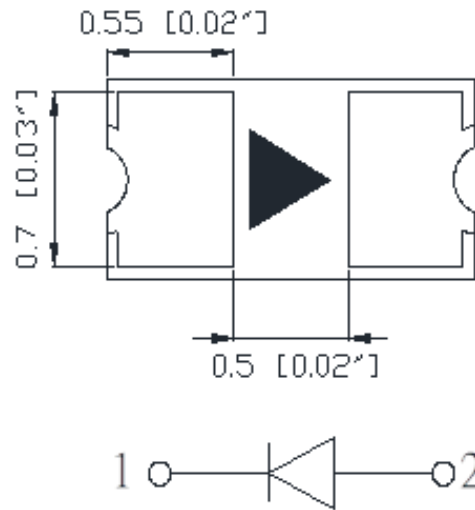
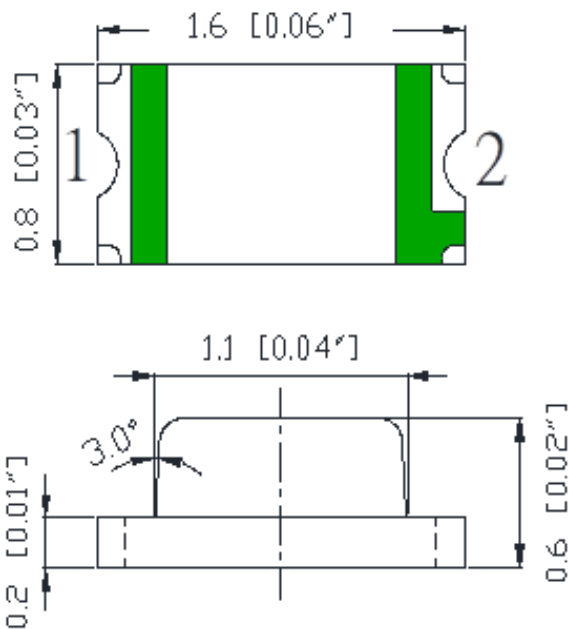
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

### Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / tolerance = +/-0.1mm

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

Product	Color	IF(mA)	VF(V)		λP (nm)			Ie (mW/sr)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP601-IR4	Infrared	20	1.8	2.3	730	740	750	0.6	1.7

**Absolute Maximum Rating**

Material	Pd (mW)	IF (mA)	IFP (A)*	VR (V)	TOP (°C)	TST (°C)	TSOL (°C)**
AlGaAs	115	50	150	5	-40 ~ +80	-40 ~ +85	260

\*Duty cycle=1%, Pulse width 100us

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

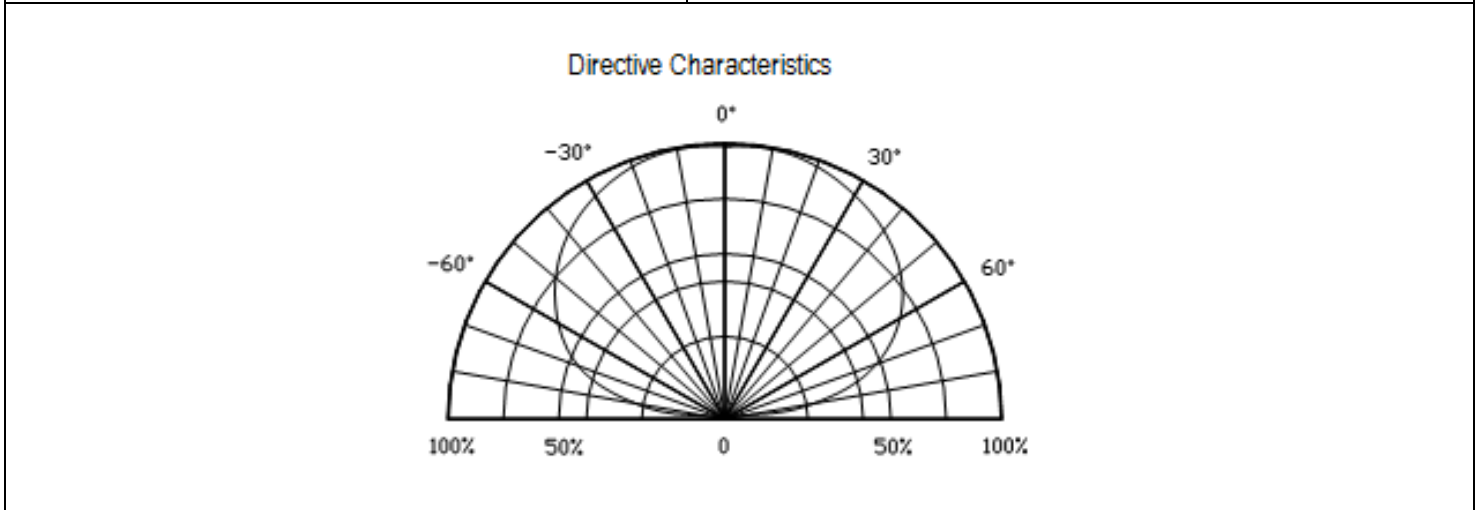
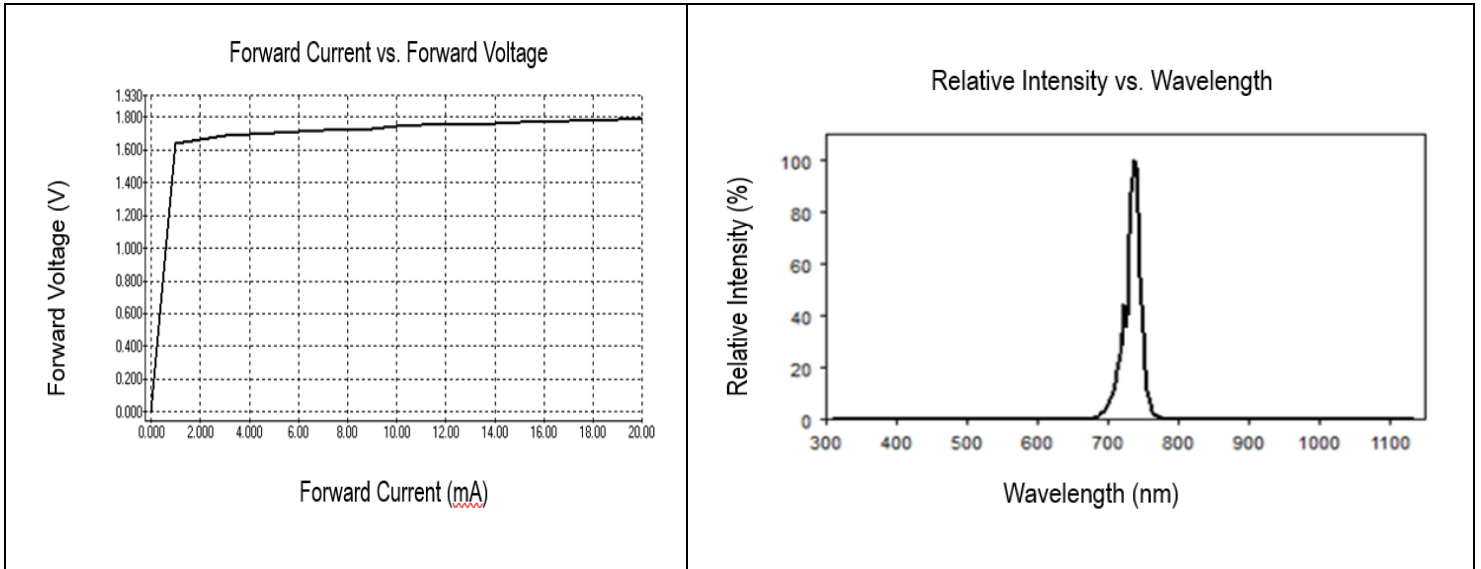
**Forward Voltage VF @ IF=20mA**

Bin	Min.	Max.	Unit
<input type="checkbox"/>	1.5	2.3	V

**Peak Wavelength λP @ IF=20mA**

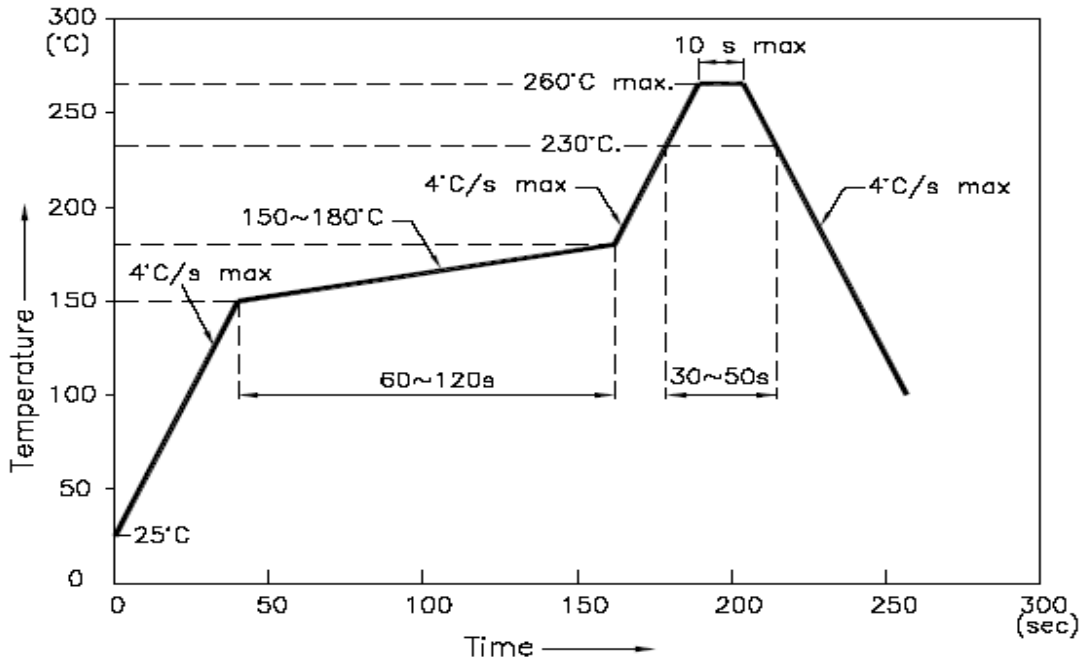
Bin	Min.	Max.	Unit
<input type="checkbox"/>	730	750	nm

## Characteristic Curves

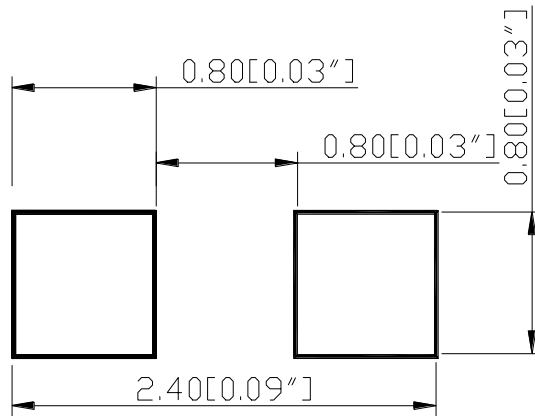


## Solder Profile & Footprint

- 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

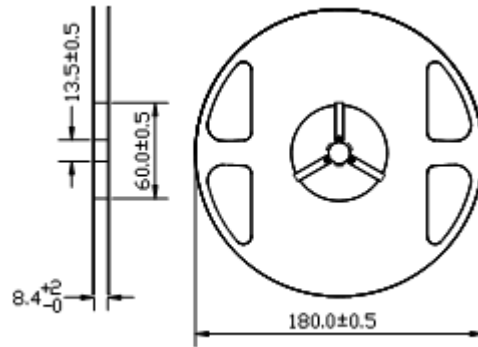


Units: mm

Tolerance: ± 0.1mm

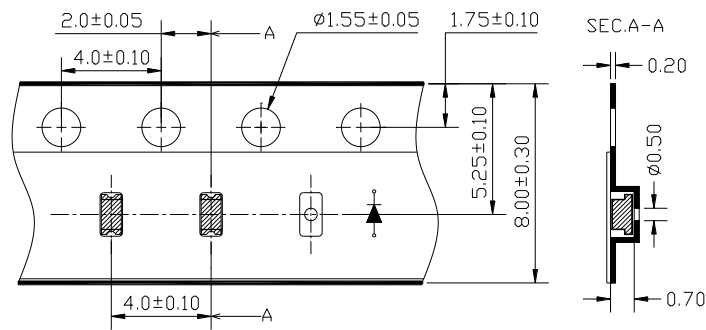
## Packing

### Reel Dimension:



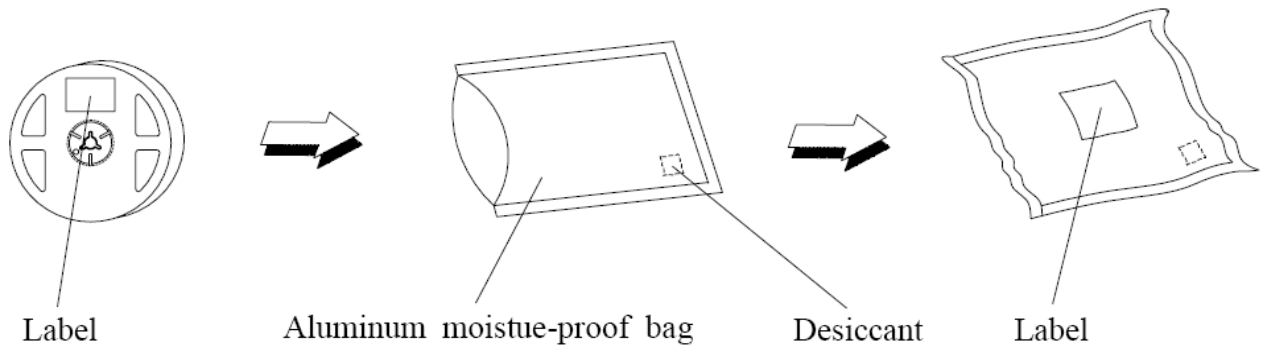
Unit: mm

### Tape Dimension:



Unit: mm

### Packaging Specification:



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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
QBLP601-IR4	QBLP601-IR4	I <sub>e</sub> =1.7mW/sr typ. / λ <sub>P</sub> =740nm typ. @ I <sub>F</sub> =20mA	4,000 units



**Revision History**

Description:	Revision #	Revision Date
New Release of QBLP601-IR4	V1.0	06/23/2020

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
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.

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