

QT-Brightek Chip LED Series**0603 IR LED****Part No.: QBLP601-IR4**

Table of Contents:

Introduction	3
Electrical / Optical Characteristic (Ta=25 °C)	4
Absolute Maximum Rating	4
Characteristic Curves.....	5
Solder Profile & Footprint.....	6
Packing	7
Labeling	8
Ordering Information	8
Revision History	9
Disclaimer	9

Product: QBLP601-IR4	Date: June 23, 2020	Page 2 of 9
	Version# 1.0	

Introduction

Feature:

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

Description:

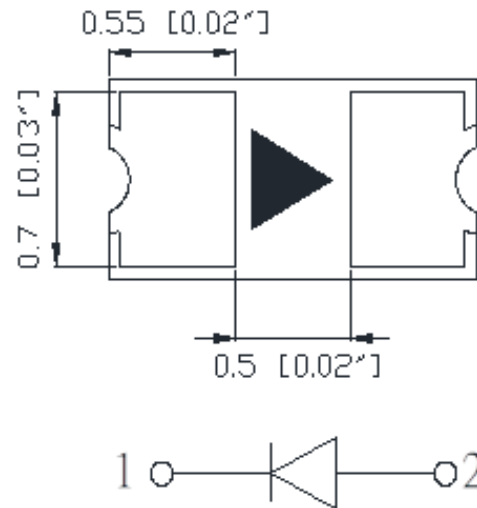
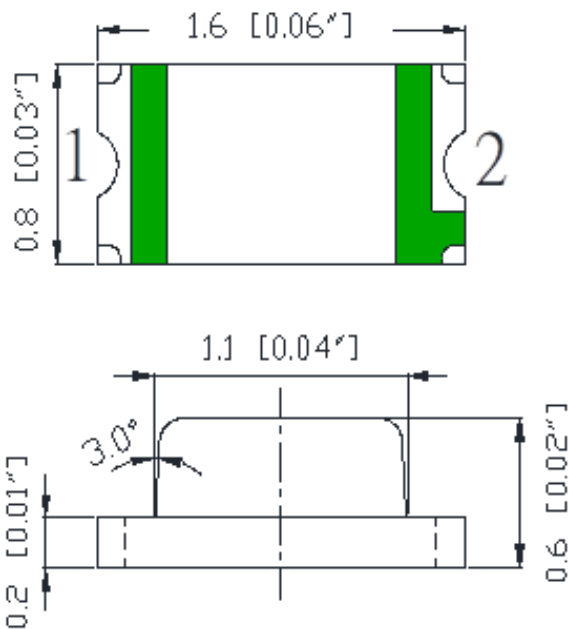
These ultra bright 0603 LEDs have a height profile of 0.60mm. With higher packing density and smaller footprint, these LEDs are ideal for smaller equipment and miniature application.

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

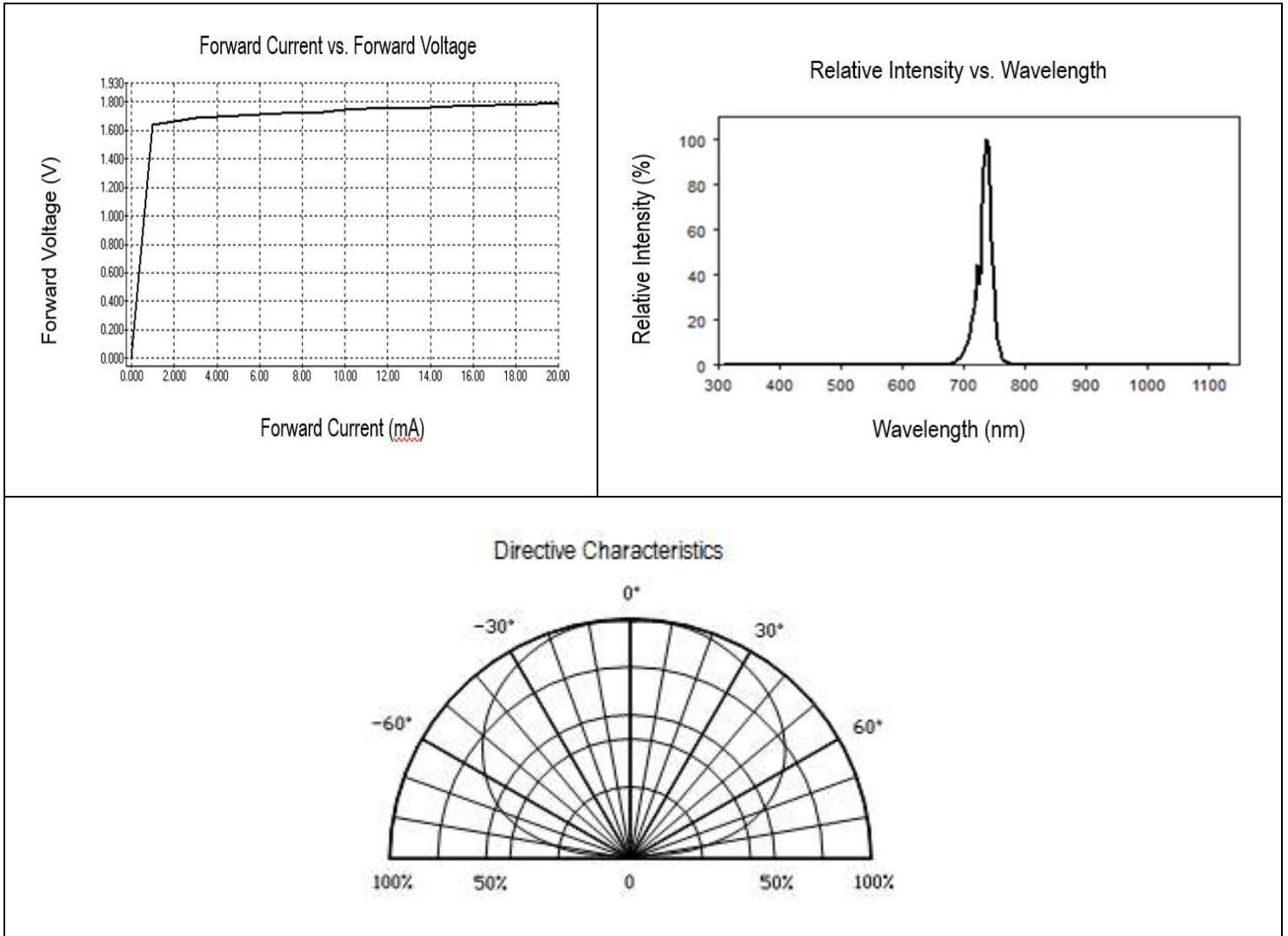
Forward Voltage VF @ IF=20mA

Bin	Min.	Max.	Unit
□	1.5	2.3	V

Peak Wavelength λP @ IF=20mA

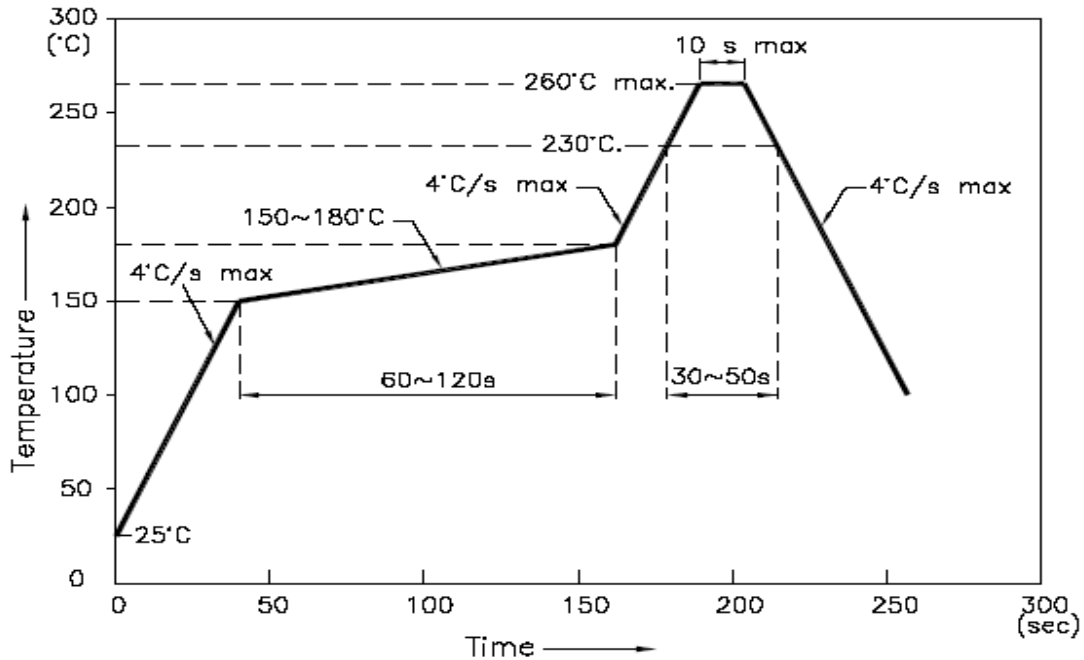
Bin	Min.	Max.	Unit
□	730	750	nm

Characteristic Curves

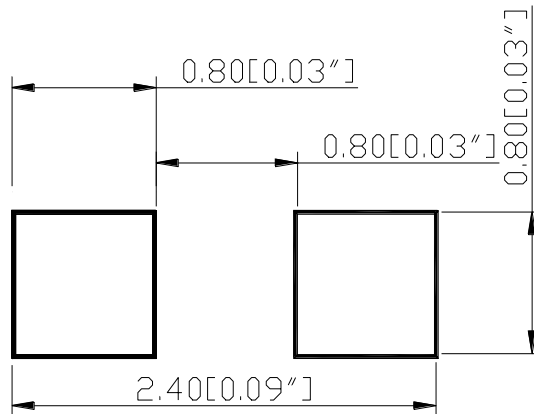


Solder Profile & Footprint

- 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

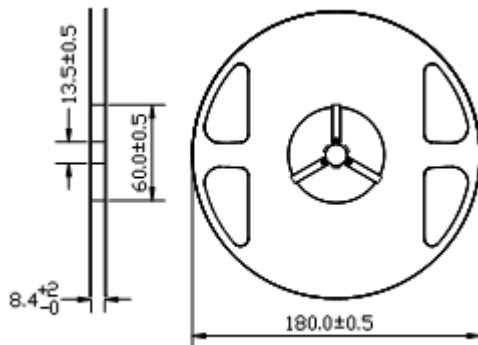


Units: mm

Tolerance: ± 0.1mm

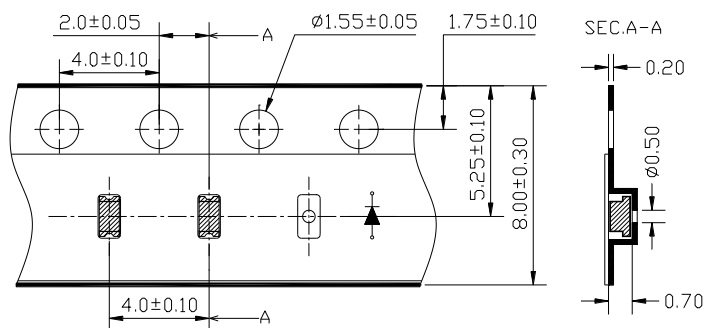
Packing

Reel Dimension:



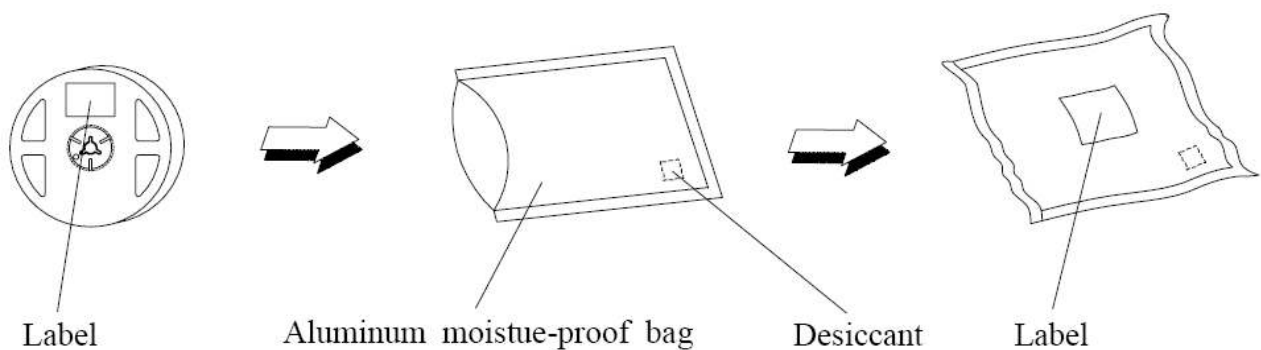
Unit: mm

Tape Dimension:



Unit: mm

Packaging Specification:



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	le=1.7mW/sr typ. / λP=740nm typ. @ If=20mA	4,000 units

Product: QBLP601-IR4	Date: June 23, 2020	Page 8 of 9
	Version# 1.0	

Revision History

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

Disclaimer

QT-BRIGHTEK reserves the right to make changes without further notice to any products herein to improve reliability, function or design. QT-BRIGHTEK does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others.

Life Support Policy

QT-BRIGHTEK's products are not authorized for use as critical components in life support devices or systems without the express written approval of QT-BRIGHTEK. As used herein:

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.

Product: QBLP601-IR4	Date: June 23, 2020	Page 9 of 9
	Version# 1.0	