

**QT-Brightek Chip LED Series**

**1204 IR LED**

**Part No.: QBLP613-IR1**

Product: QBL613-IR1	Date: March 26, 2014	Page 1 of 9
	Version# 1.0	

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**Table of Contents:**

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

Product: QBL613-IR1	Date: March 26, 2014	Page 2 of 9
	Version# 1.0	

## Introduction

**Feature:**

- Water clear lens
- Package in tape and reel
- Side View 1204 LED package
- AlGaAs technology for IR
- Viewing Angle = 150 deg

**Description:**

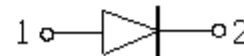
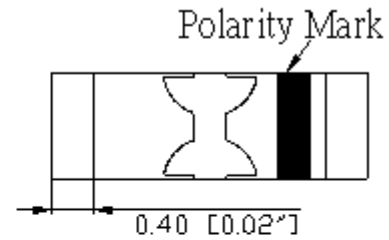
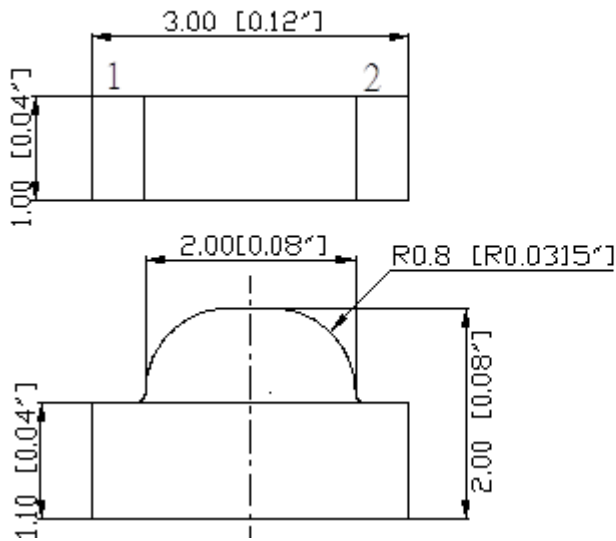
These 1204 LEDs have a height profile of 1.0mm. With higher packing density and smaller footprint, these LEDs are ideal for smaller equipment and miniature application.

**Application:**

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

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant

**Dimension:**

Units: mm / tolerance = +/-0.1mm

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

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>P</sub> (nm)			I <sub>e</sub> (mW/sr)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP613-IR1	Infrared	20	1.2	1.6	--	940	--	--	0.6

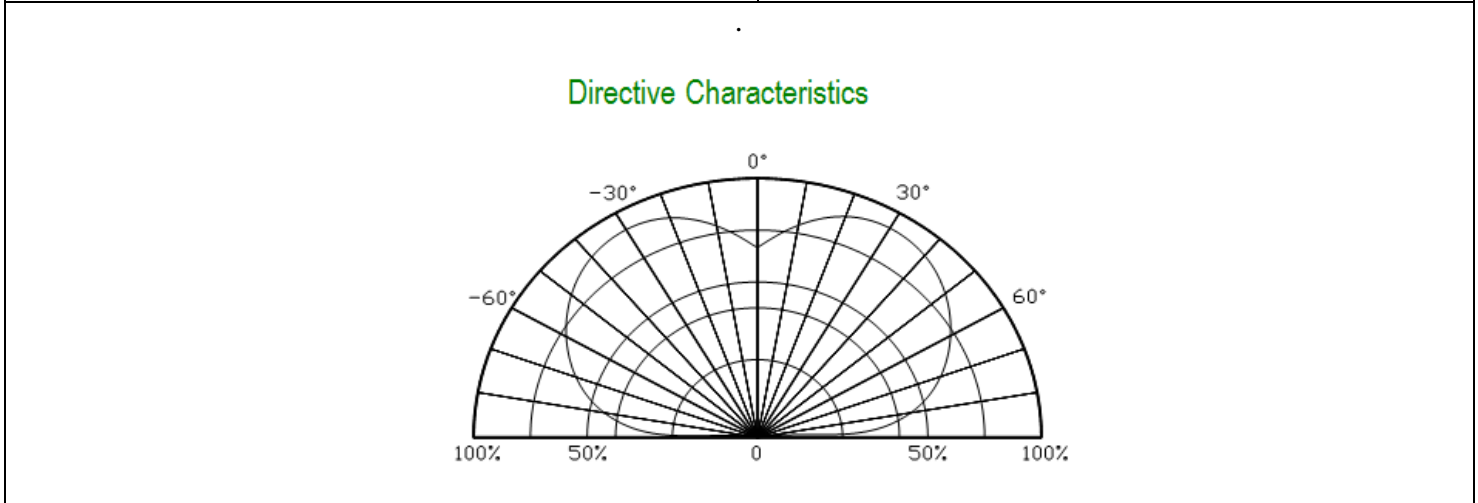
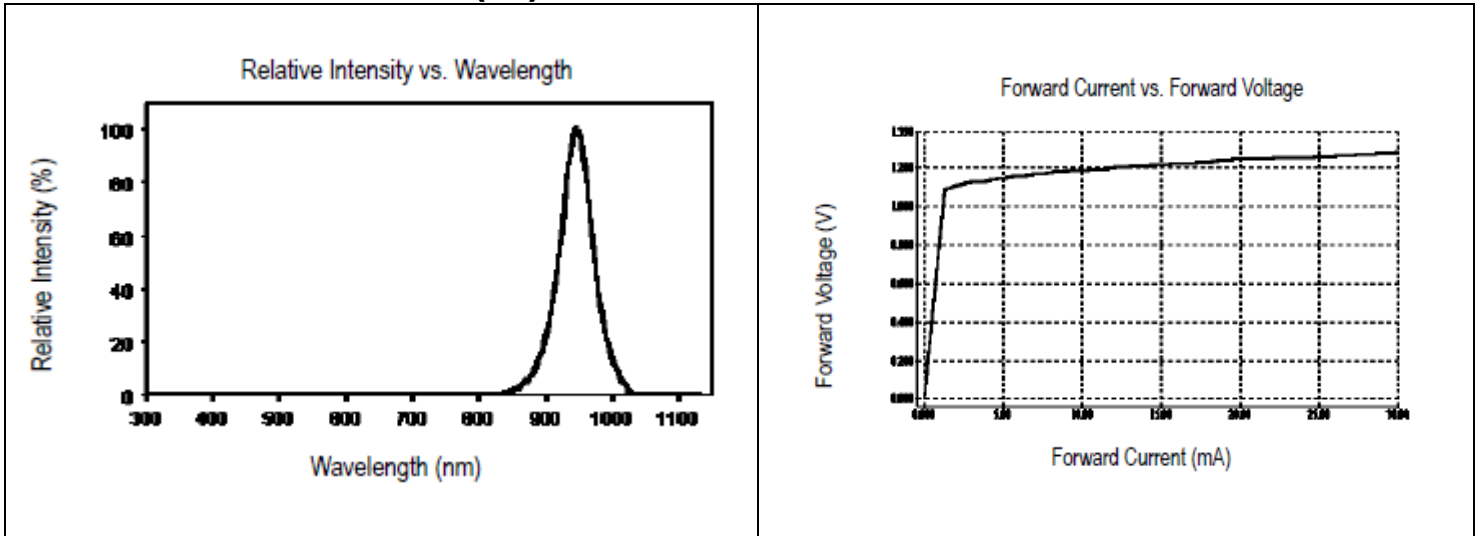
**Absolute Maximum Rating**

Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (A)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
AlGaAs	85	50	1	5	-40 ~ +85	-40 ~ +100	260

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

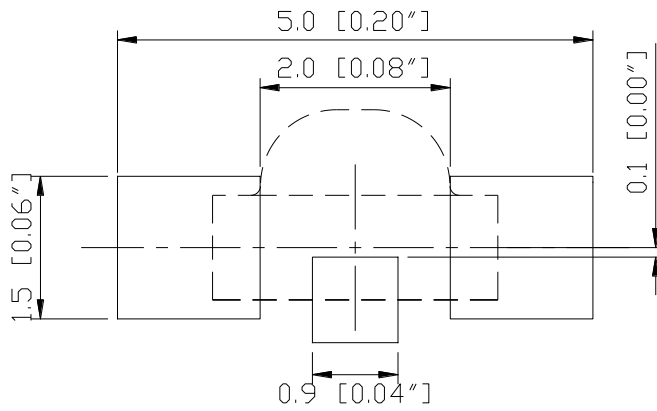
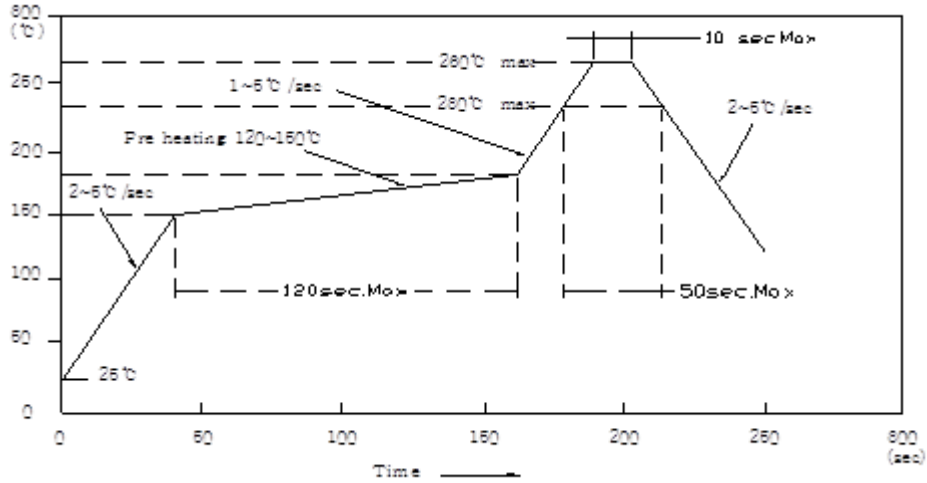
\*\* IR Reflow for no more than 10 sec @ 260 °C

**Characteristic Curves (IR)**



## Solder Profile & Footprint

- Recommended tin glue 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):



( Proposed Solder footprint )

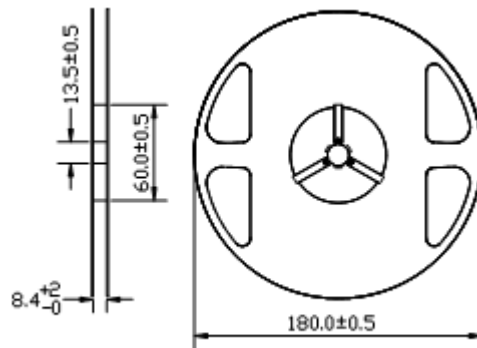
Units: mm

tolerance: +/- 0.1mm

Product: QBL613-IR1	Date: March 26, 2014	Page 6 of 9
	Version# 1.0	

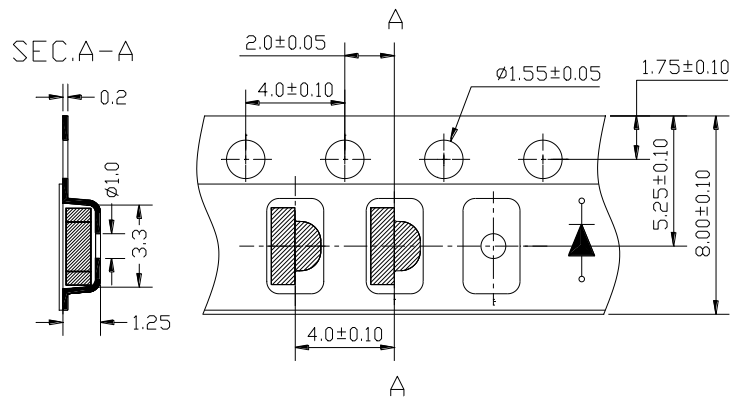
## Packing

### Reel Dimension:



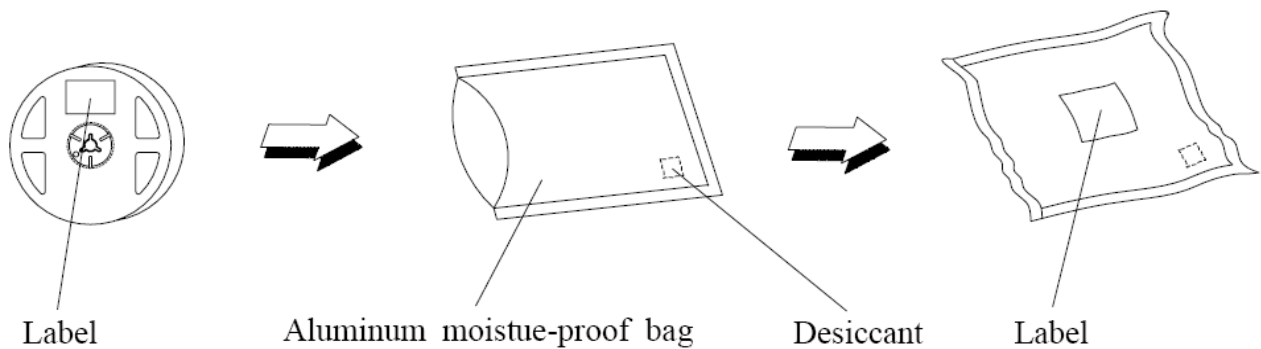
Unit: mm

### Tape Dimension:



Unit: mm

### Packaging Specification:



Product: QBLP613-IR1	Date: March 26, 2014	Page 7 of 9
	Version# 1.0	

**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
QBLP613-IR1	QBLP613-IR1	$I_e = 0.6 \text{ mW/sr min.} / \lambda_p = 940\text{nm} @ I_F = 20\text{mA}$	3,000 units

Product: QBL613-IR1	Date: March 26, 2014	Page 8 of 9
	Version# 1.0	



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## Revision History

Description:	Revision #	Revision Date
New Release of QBLP613-IR1	V1.0	03/26/2014

## Disclaimer

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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.

Product: QBL613-IR1	Date: March 26, 2014	Page 9 of 9
	Version# 1.0	