

QT-Brightek Chip LED Series

1204 IR LED

Part No.: QBLP613-IR1

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|---------------------|----------------------|-------------|
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| | Version# 1.0 | |

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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:

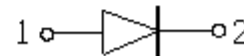
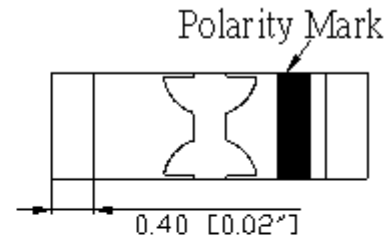
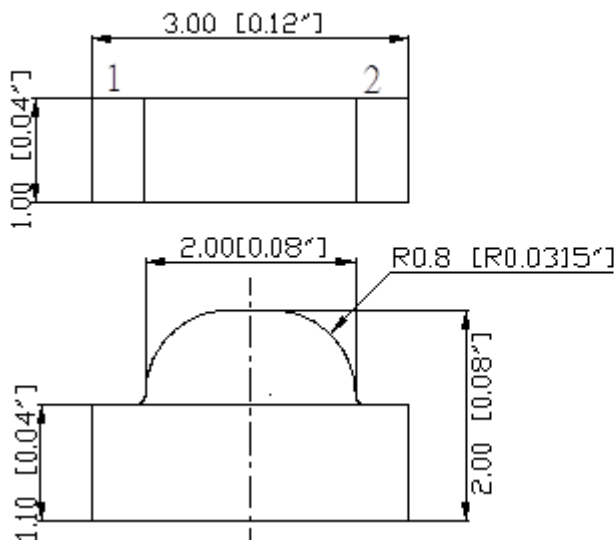
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

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Electrical / Optical Characteristic (T=25 °C)

| Product | Color | I _F (mA) | V _F (V) | | λ _P (nm) | | | I _e (mW/sr) | |
|-------------|----------|---------------------|--------------------|------|---------------------|------|------|------------------------|------|
| | | | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. |
| QBLP613-IR1 | Infrared | 20 | 1.2 | 1.6 | -- | 940 | -- | -- | 0.6 |

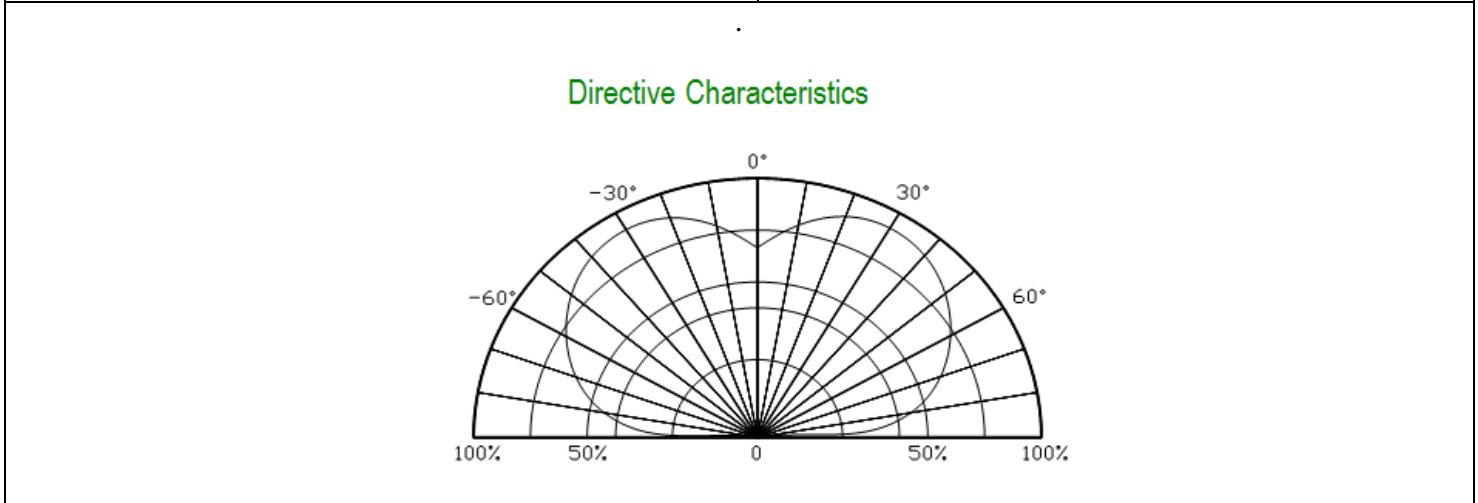
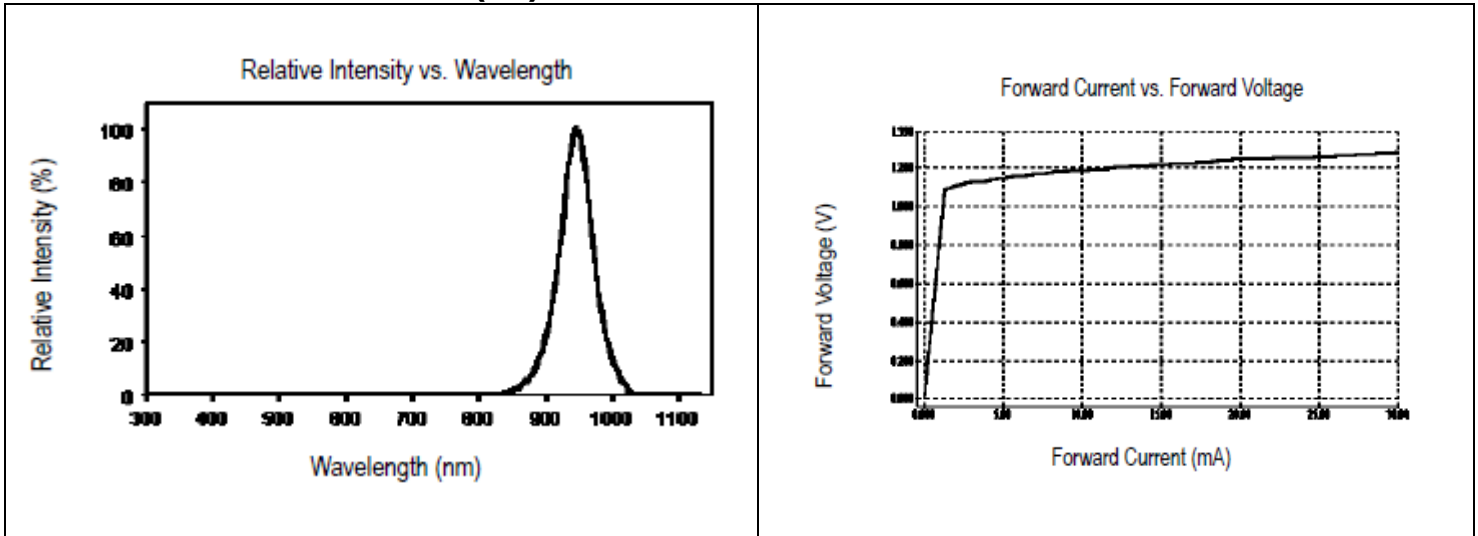
Absolute Maximum Rating

| Material | P _d (mW) | I _F (mA) | I _{FP} (A)* | V _R (V) | T _{OP} (°C) | T _{ST} (°C) | T _{SOL} (°C)** |
|----------|---------------------|---------------------|----------------------|--------------------|----------------------|----------------------|-------------------------|
| AlGaAs | 85 | 50 | 1 | 5 | -40 ~ +85 | -40 ~ +100 | 260 |

*Duty cycle=1%, Pulse width 100us

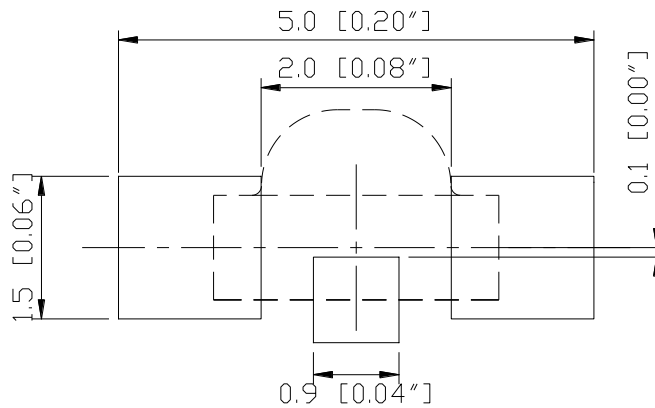
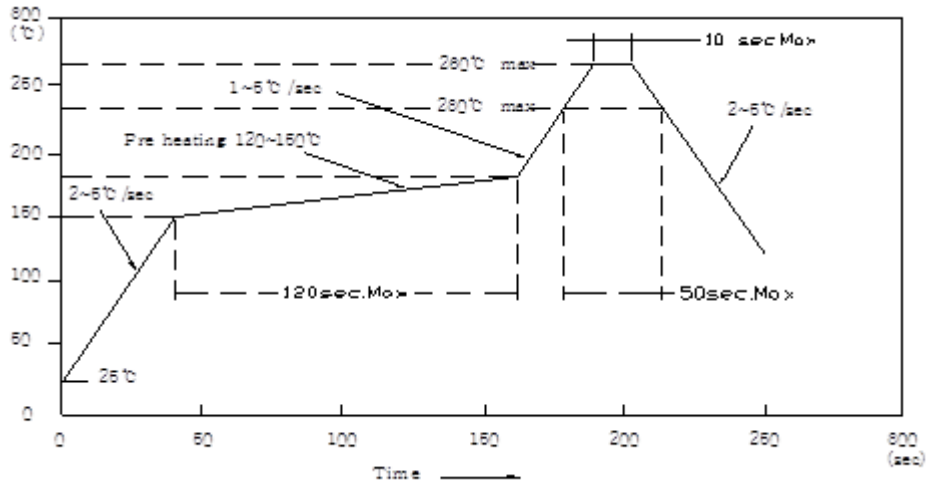
** IR Reflow for no more than 10 sec @ 260 °C

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)

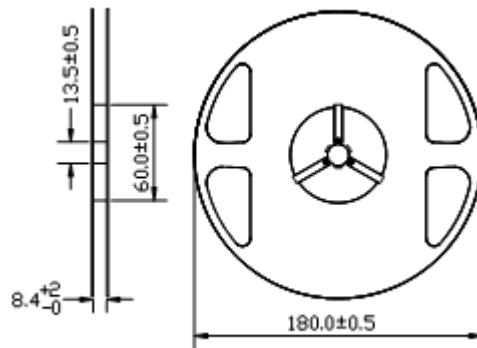
Units: mm

tolerance: +/- 0.1mm

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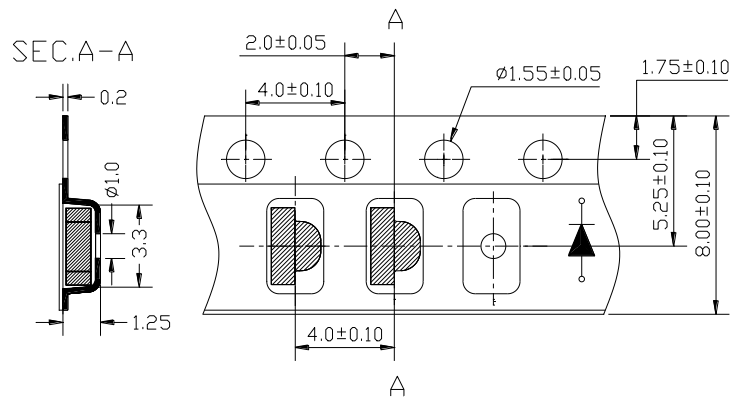
Packing

Reel Dimension:



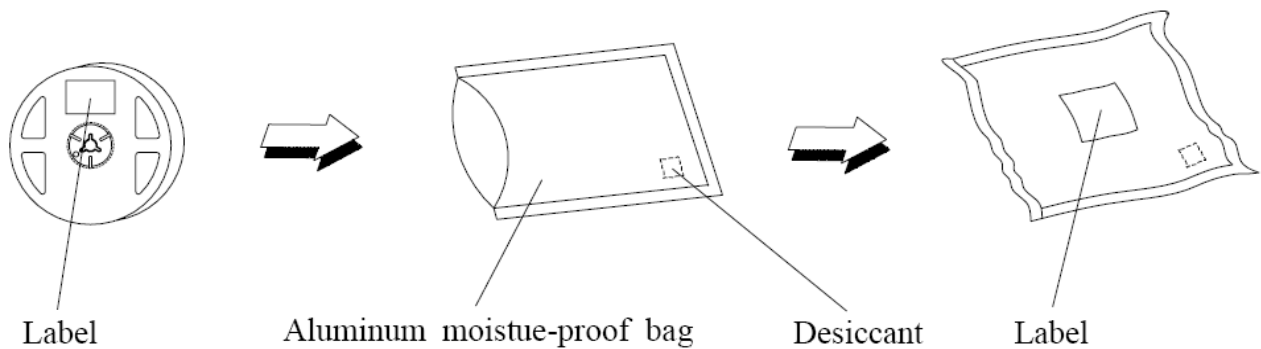
Unit: mm

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 |
|-------------|------------------|---|-------------------|
| 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 |

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Revision History

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

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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.

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