

**QT-Brightek PLCC Series**

**3020 PLCC2 IR LED**

**Part No.: QBLP676-IR1**

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## Introduction

**Feature:**

- Water clear lens
- Package in tape and reel
- AlGaAs technology
- Viewing Angle = 120 deg

**Description:**

These ultra bright reflector type 3020 type PLCC2 LEDs have a height profile of 1.30mm. Combination of high brightness output and robust package, these LEDs are ideal for architecture lighting, status indication, and industrial equipment lighting applications.

**Application:**

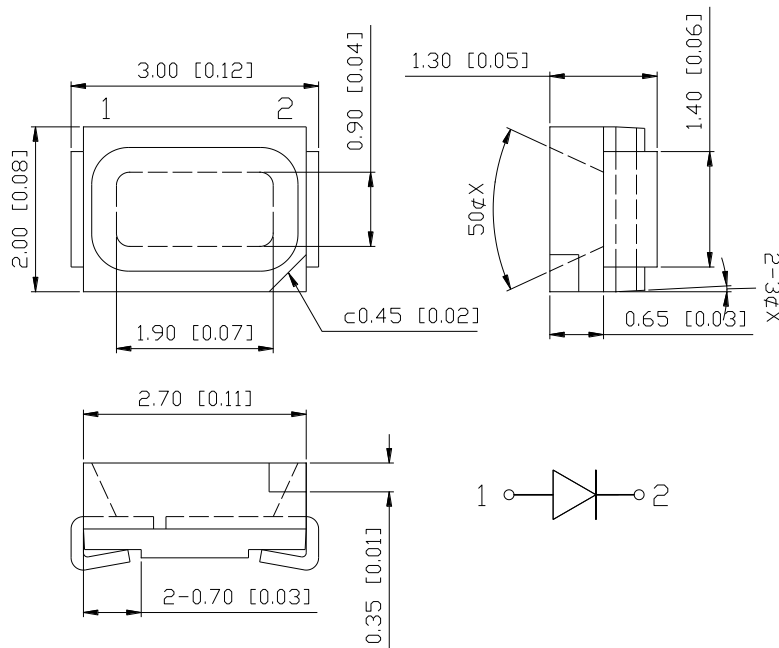
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant



**Dimension:**



Units: mm / tolerance = +/-0.2mm

**Electrical / Optical Characteristic (Ta=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.	Max.
QBLP676-IR1	Infrared	20	1.2	1.8	-	940	-	0.2	0.6	1.6

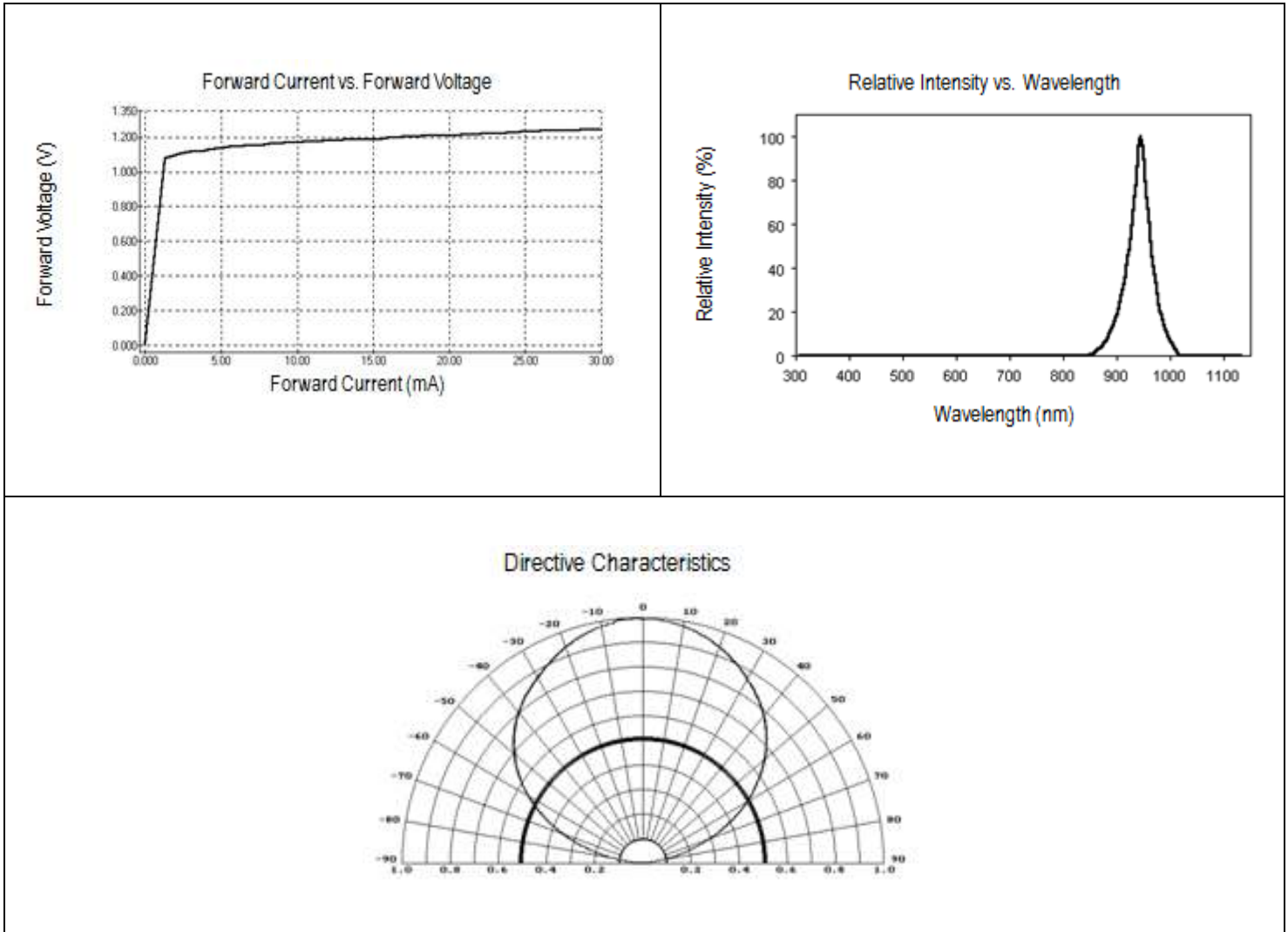
**Absolute Maximum Rating**

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	90	50	1	5	-40 ~ +80	-40 ~ +85	260

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

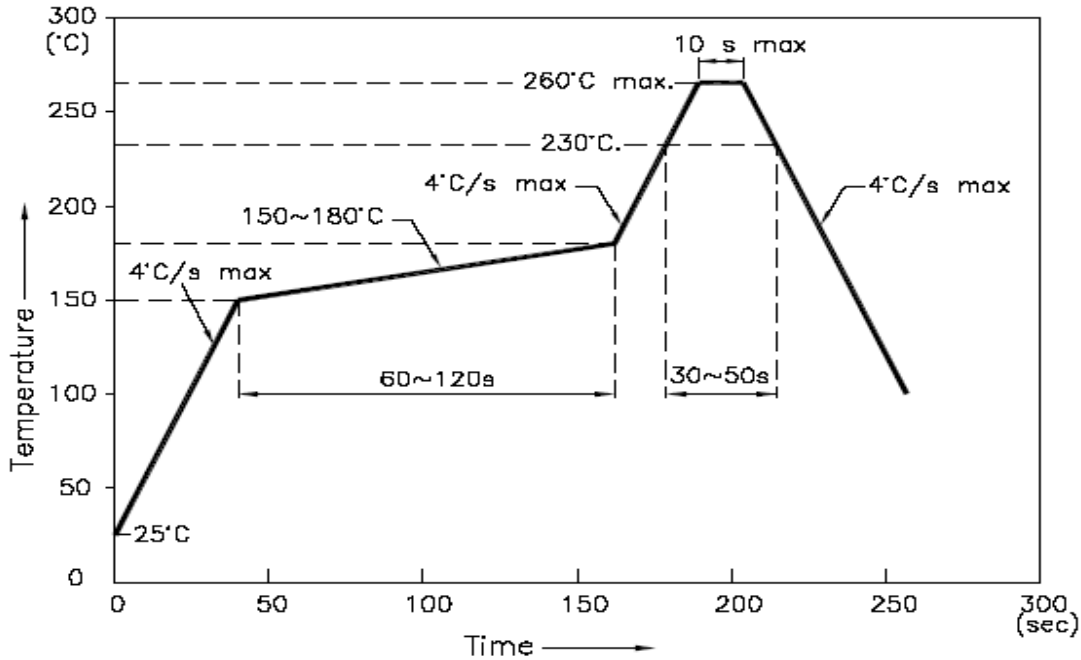
\*\*IR Reflow for no more than 10 sec @ 260 °C

### Characteristic Curves

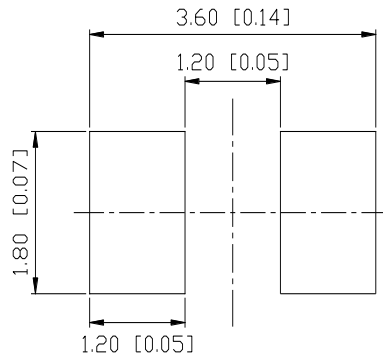


## Solder Profile & Footprint

- 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



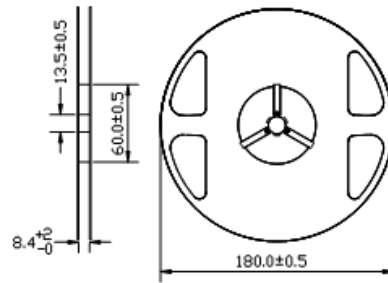
Units: mm

Tolerance: ± 0.2mm

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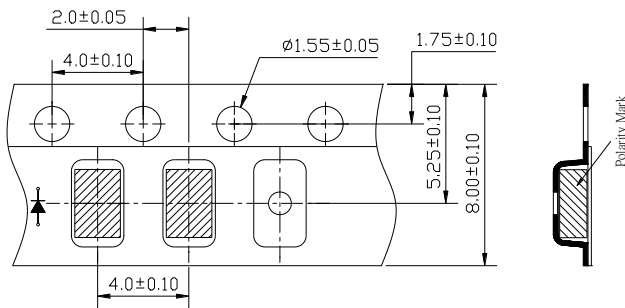
## Packing

### Reel Dimension:



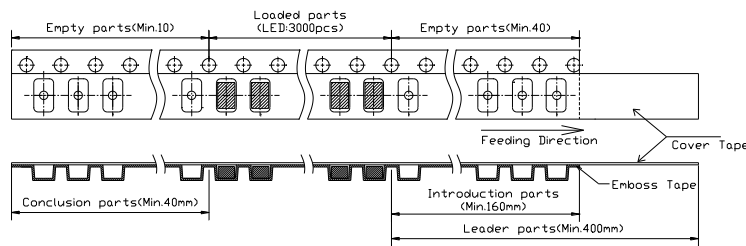
Unit: mm

### Tape Dimension:

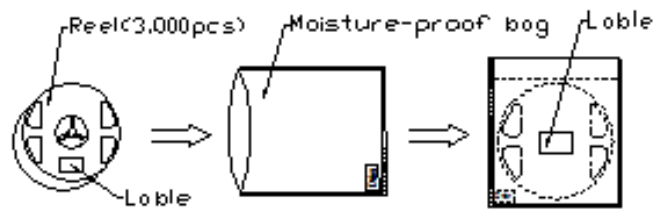


Unit: mm

### Arrangement of Tape:



### 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
QBLP676-IR1	QBLP676-IR1	I <sub>e</sub> =1.2mW/sr typ. @ I <sub>F</sub> =20mA / λ <sub>p</sub> =940nm typ.	3,000 units

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**Revision History**

Description:	Revision #	Revision Date
New Release of QBLP676-IR1	V1.0	05/01/2015

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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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