



QBL912ZC-IR3

1.8mm Round Subminiature “Z-Bend” Lead  
IR LEDs

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**QT-Brightek 1.8mm Round Subminiature LED Series**

**1.8mm Round Subminiature “Z-Bend” Lead IR LEDs**

**Part No.: QBL912ZC-IR3**

**IR3: 850nm**

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## Introduction

### Feature:

- Water clear lens
- Package in tape and reel
- AlGaAs technology
- Viewing Angle = 20 deg
- Reverse Mount

### Description:

This 1.8mm round subminiature IR lamp with z-bend lead configuration is suitable for surface mount applications.

### Application:

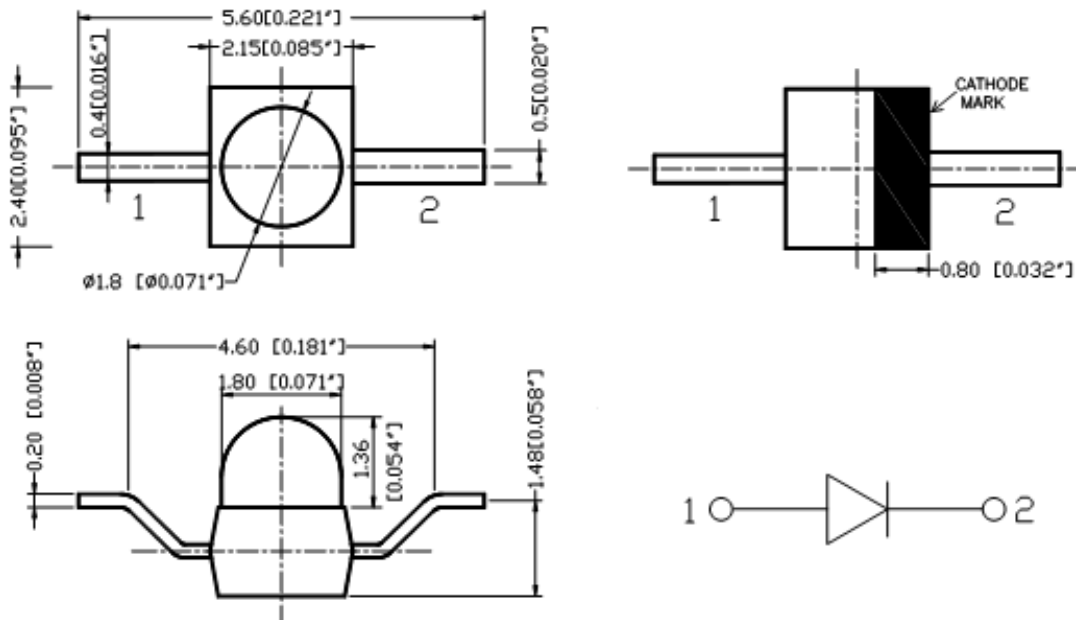
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

### Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / tolerance = +/-0.2mm

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

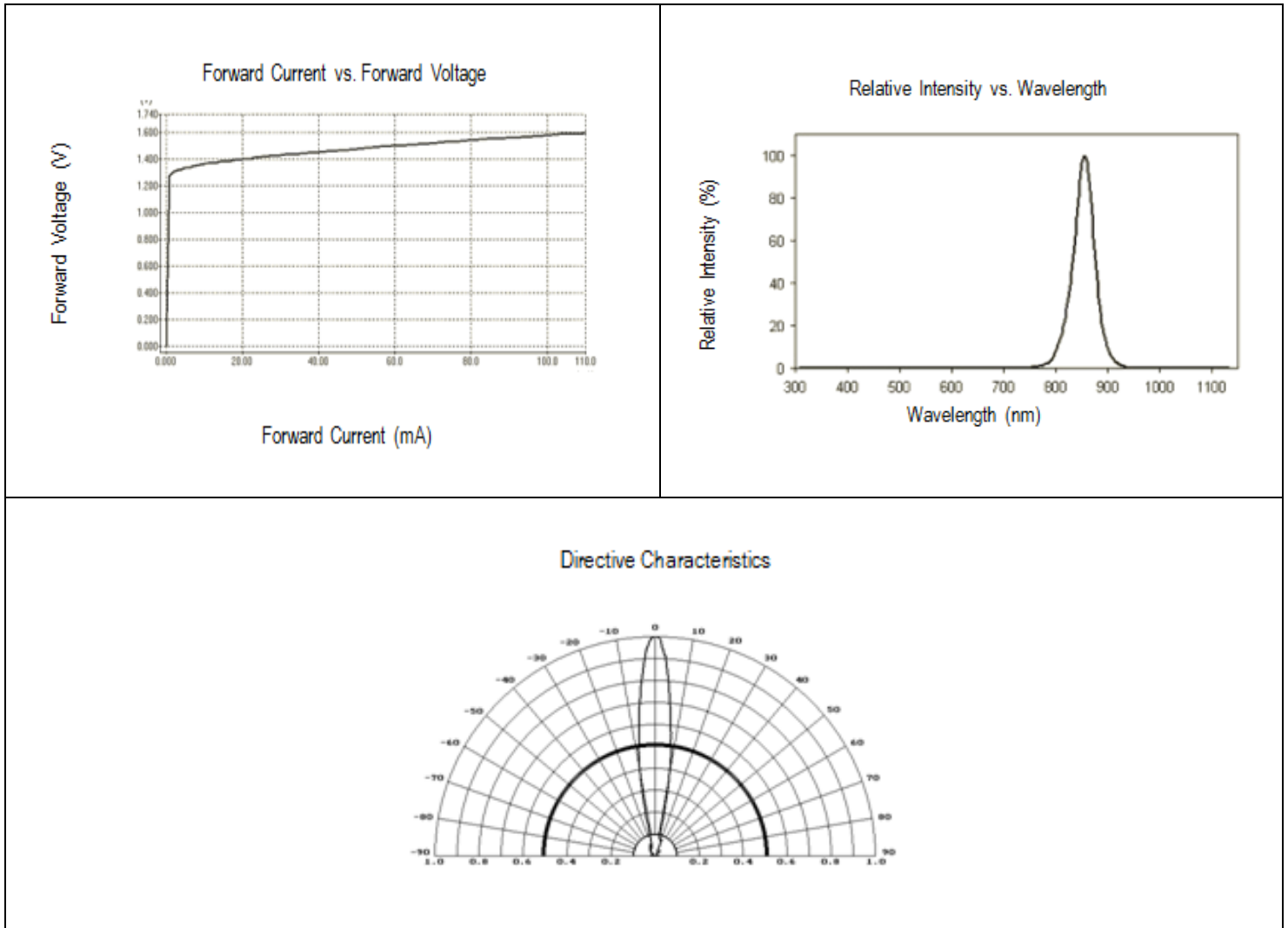
Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>P</sub> (nm)			I <sub>e</sub> (mW/sr)		
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
QBL912ZC-IR3	Infrared	100	1.5	1.8	835	850	860	19	22	24.3

**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>SO L</sub> (°C)**
AlGaAs	180	100	1	5	-40 ~ +80	-40 ~ +85	260

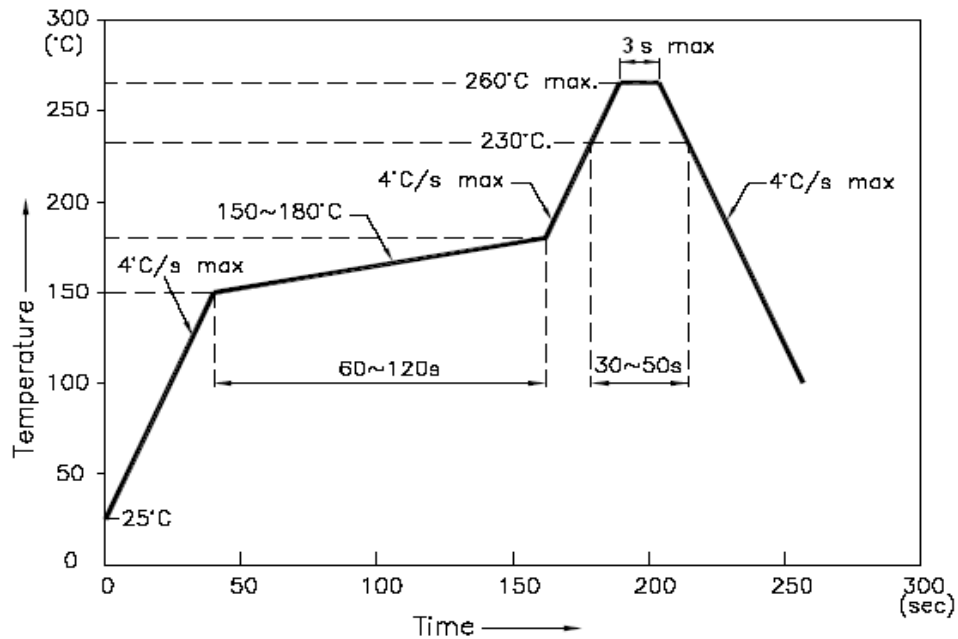
\*Duty cycle=1%, Pulse width 100us

\*\*IR Reflow for no more than 3 sec @ 260 °C

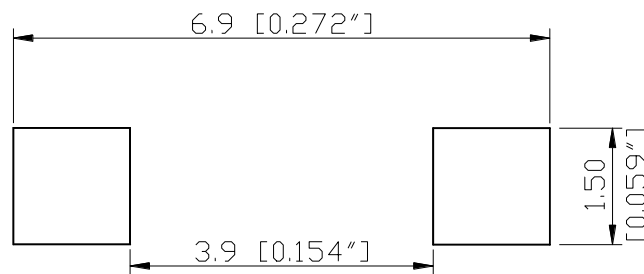
**Characteristic Curves**

## 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



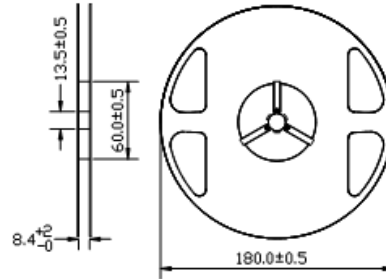
Units: mm

Tolerance: ±0.2mm

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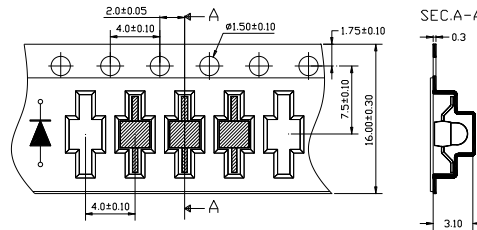
## Packing

### Reel Dimension:



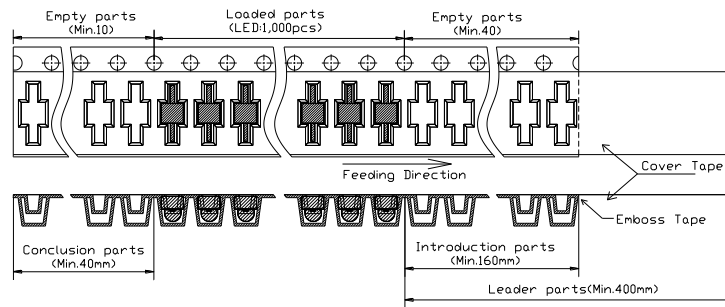
Unit: mm

### Tape Dimension:

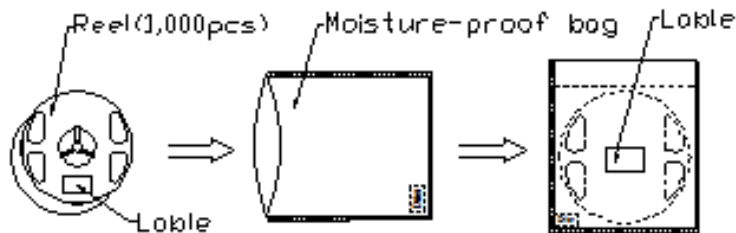


Unit: mm

### 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
QBL912ZC-IR3	QBL912ZC-IR3	$I_e=22\text{mW/sr typ. @ } I_f=100\text{mA} /$ $\lambda_P=850\text{nm typ.}$	1,000 units

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## Revision History

Description:	Revision #	Revision Date
New Release of QBL912ZC-IR3	V1.0	05/14/2015
Update wavelength Min. value to 835nm / update logo	V1.1	06/11/2021

## 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.

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