

QT-Brightek 1.8mm Round Subminiature LED Series

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

Part No.: QBL912ZC-IR2

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	Version# 1.0	

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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 are suitable for surface mount applications.

Application:

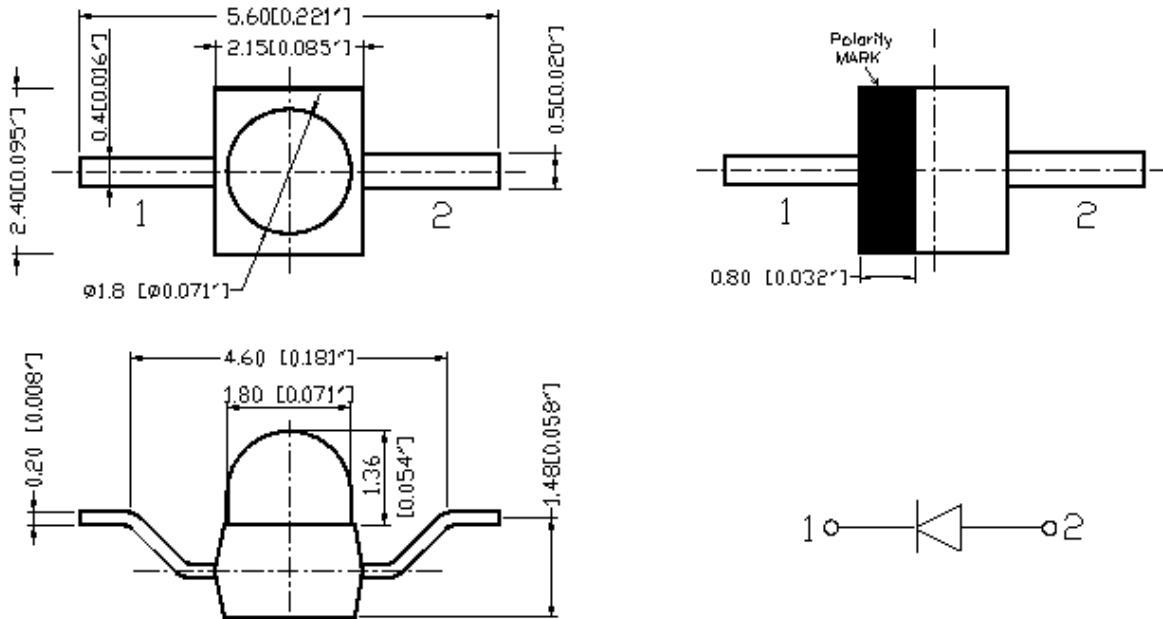
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.2mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)		λ _P (nm)			I _e (mW/sr)		
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
QBL912ZC-IR2	Infrared	20	1.4	1.8	870	880	890	0.6	1.3	2.6

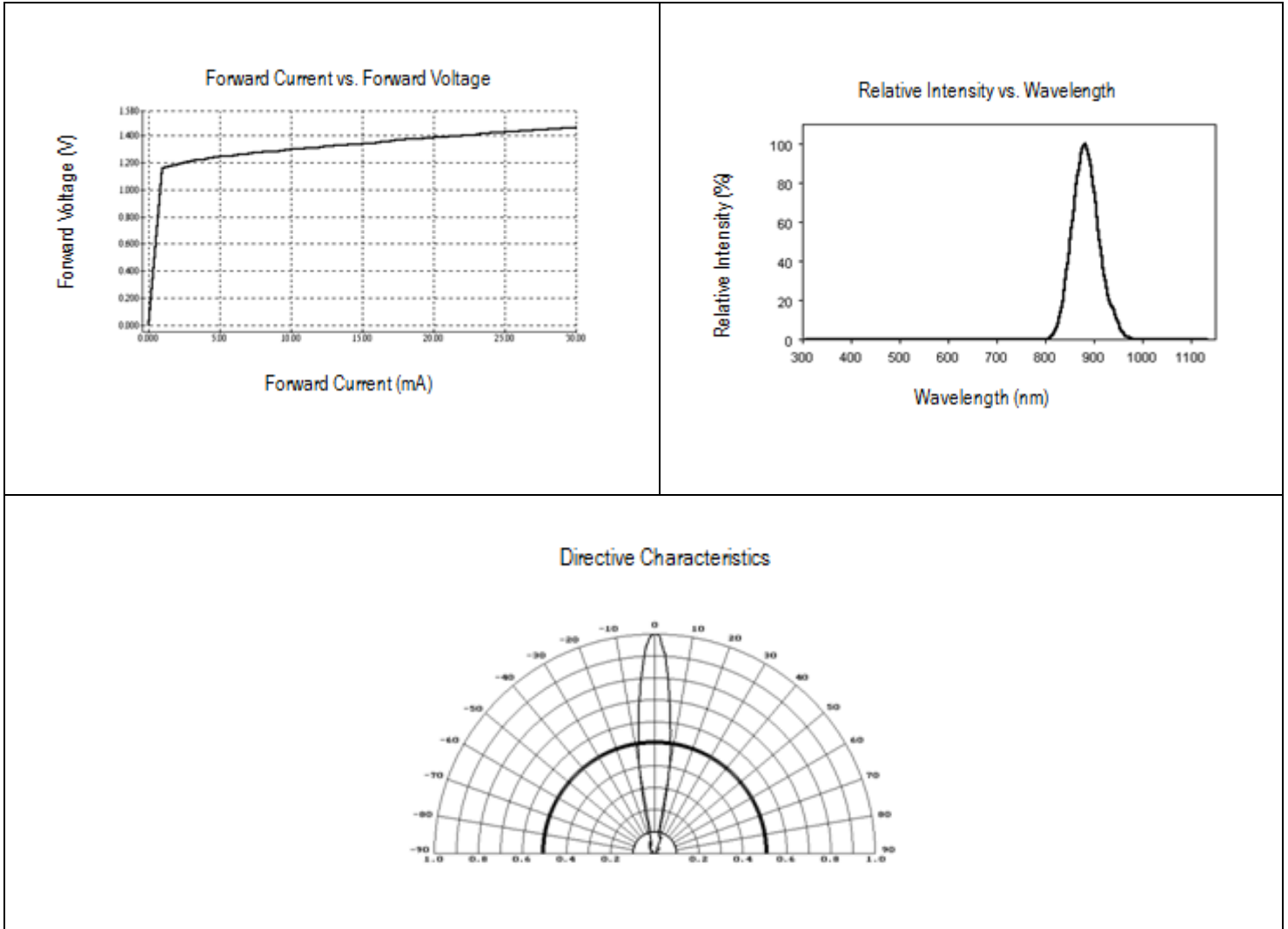
Absolute Maximum Rating

Material	P _d (mW)	I _F (mA)	I _{FP} (A)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**
AlGaAs	90	50	1	5	-40 ~ +80	-40 ~ +85	260

*Duty cycle=1%, Pulse width 100us

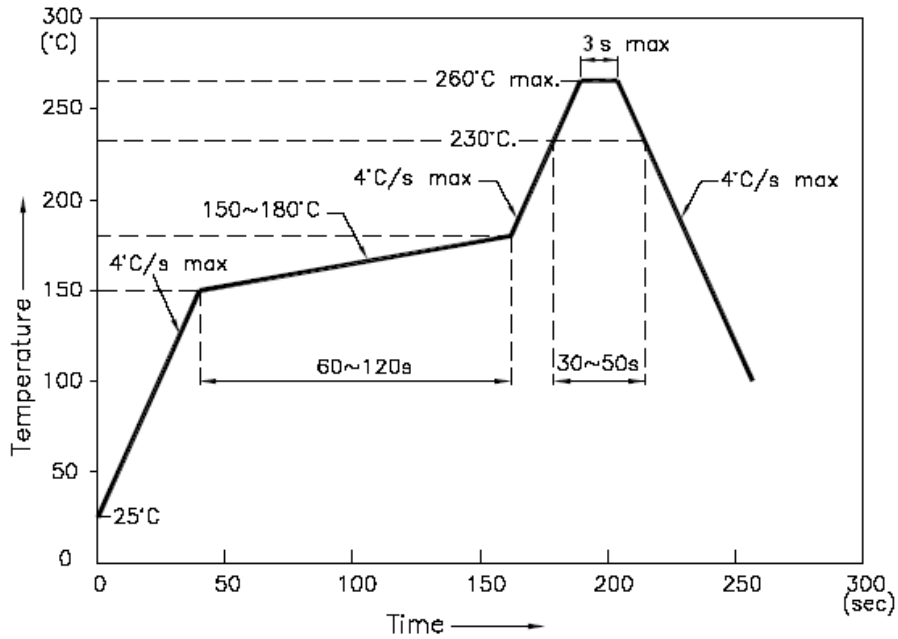
**IR Reflow for no more than 3 sec @ 260 °C

Characteristic Curves

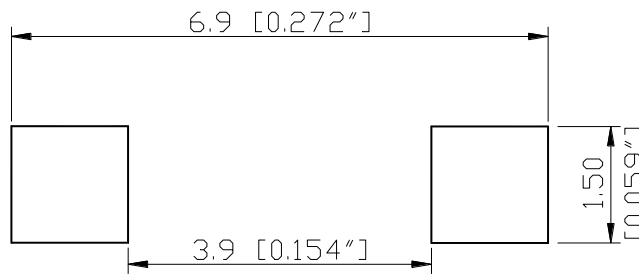


Solder Profile & Footprint

- 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

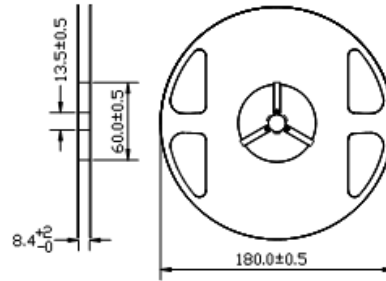


Units: mm

Tolerance: ± 0.2mm

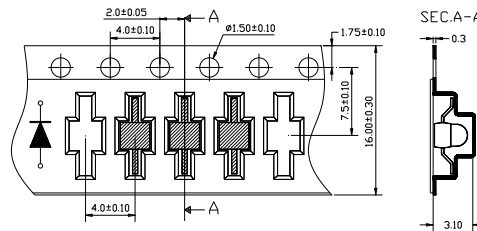
Packing

Reel Dimension:



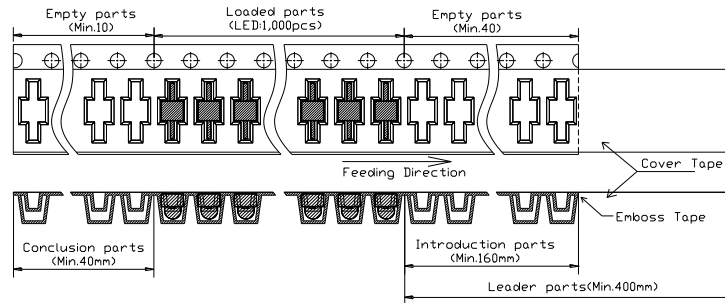
Unit: mm

Tape Dimension:

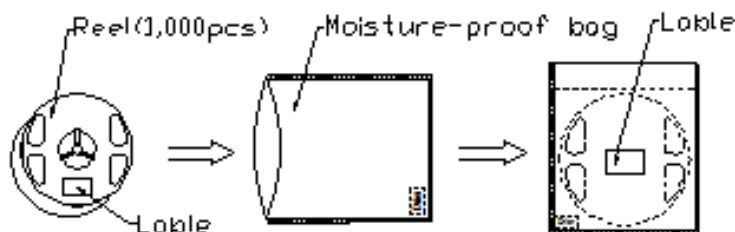


Unit: mm

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-IR2	QBL912ZC-IR2	$I_e=1.3\text{mW/sr typ. @ } I_F=20\text{mA} /$ $\lambda_P=880\text{nm typ.}$	1,000 units

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Revision History

Description:	Revision #	Revision Date
New Release of QBL912ZC-IR2	V1.0	05/14/2015

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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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