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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**QT-Brightek 1.8mm Round Subminiature LED Series**  
**1.8mm Round Subminiature “Gull-Wing” Lead IR LEDs**  
**Part No.: QBL912GC-IR2**

Product: QBL912GC-IR2	Date: May 14, 2015	Page 1 of 9
	Version# 1.0	

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## Introduction

**Feature:**

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

**Description:**

This 1.8mm round subminiature IR lamp with gull wing lead configuration are suitable for surface mount applications.

**Application:**

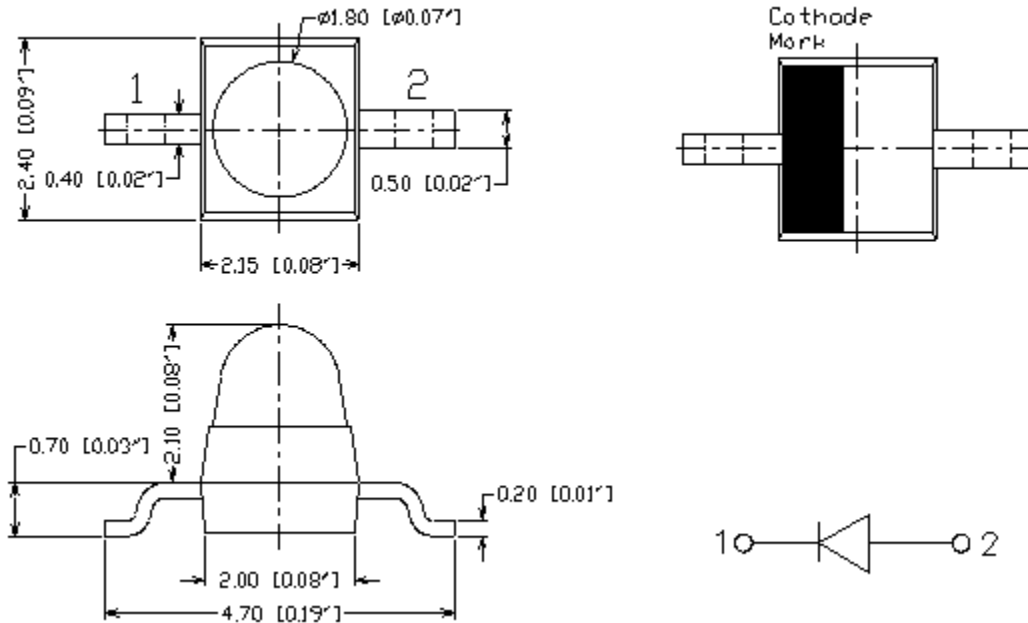
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant



**Dimension:**



Units: mm / tolerance = +/-0.2mm

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

Product	Color	I <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.
QBL912GC-IR2	Infrared	20	1.4	1.8	870	880	890	0.6	1.3	2.6

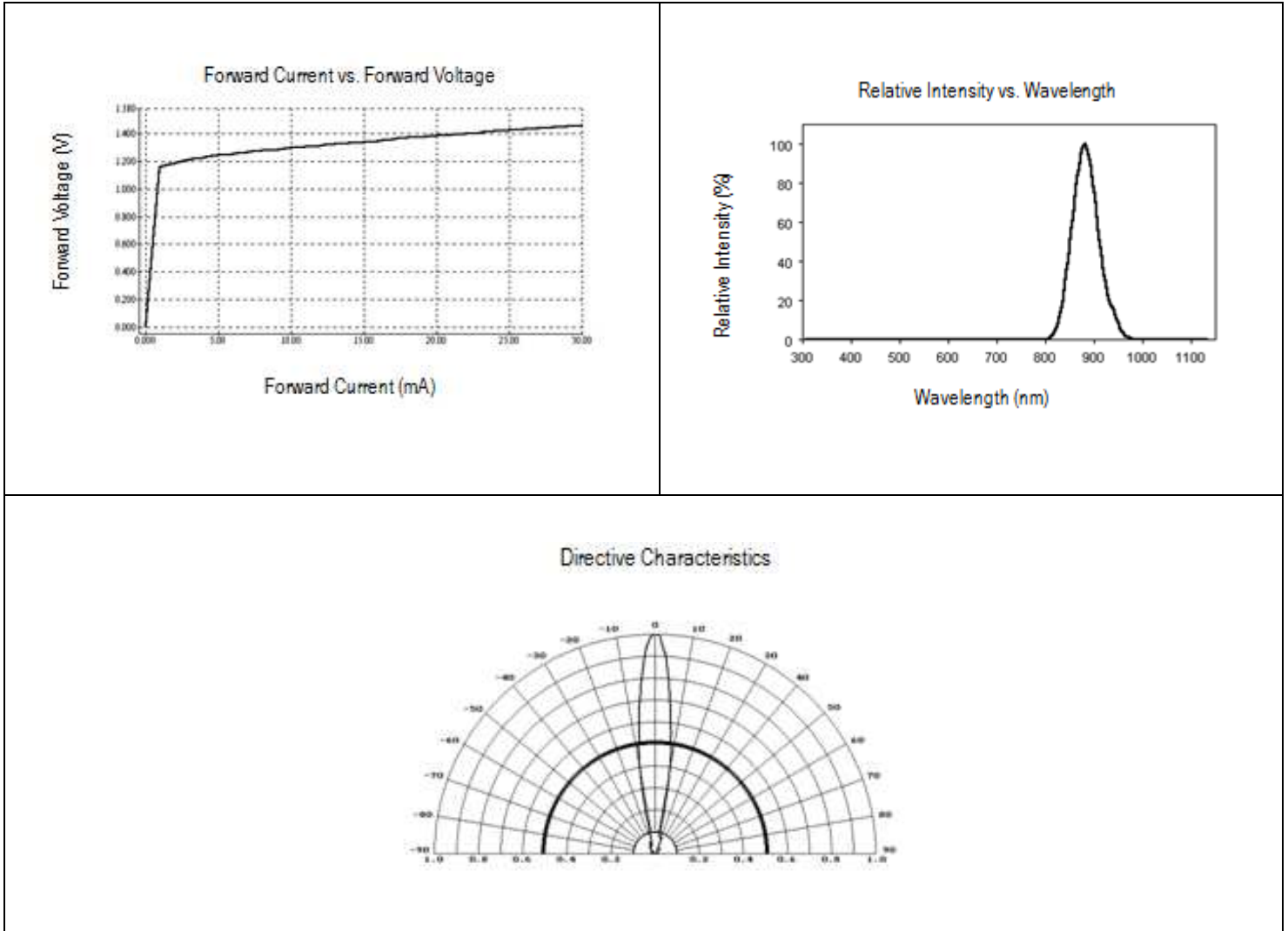
**Absolute Maximum Rating**

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

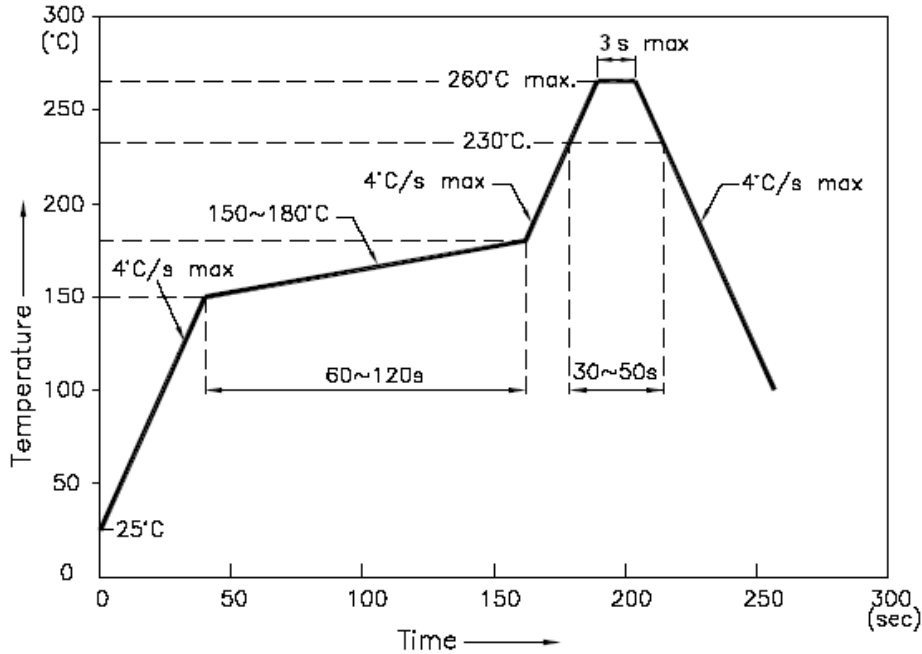
\*\*IR Reflow for no more than 3 sec @ 260 °C

**Characteristic Curves**

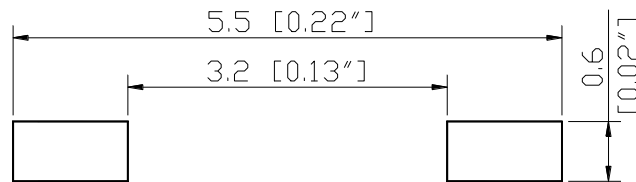


## Solder Profile & Footprint

- 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



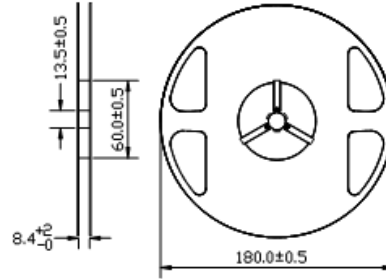
Units: mm

Tolerance: ± 0.2mm

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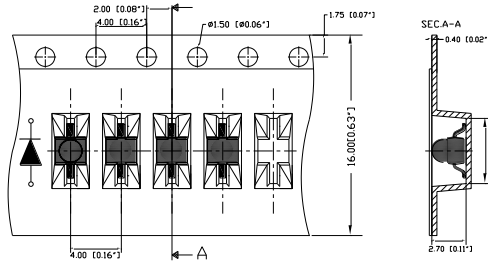
## Packing

### Reel Dimension:



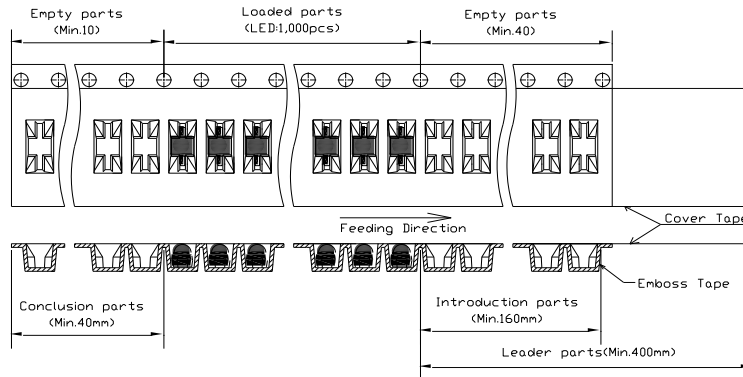
Unit: mm

### Tape Dimension:

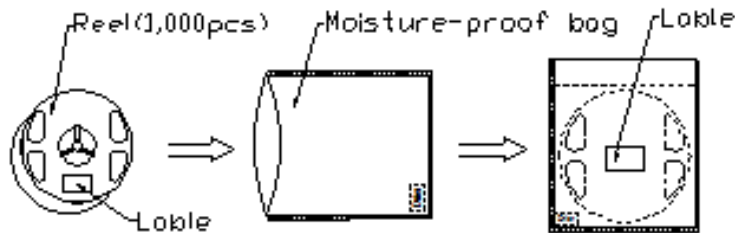


Unit: mm

### Arrangement of Tape:



### Packaging Specification:





**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
QBL912GC-IR2	QBL912GC-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 QBL912GC-IR2	V1.0	05/14/2015

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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.