

QT-Brightek Chip LED Series
1208 IR LED with Dome Lens
Part No.: QBLP653-IR3

Product: QBLP653-IR3	Date: August 08, 2017	Page 1 of 9
	Version# 1.1	

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Introduction

Feature:

- Water clear lens
- Tape and reel packaging
- Bright LED package
- AlGaAs technology for IR
- Viewing Angle = 15 deg

Description:

This light weight bright 1208 LEDs have a height profile of 2.5mm. With narrow viewing angle, LED produces high intensity output. This device is spectrally matched with phototransistor, photodiode and infrared receiver module.

Application:

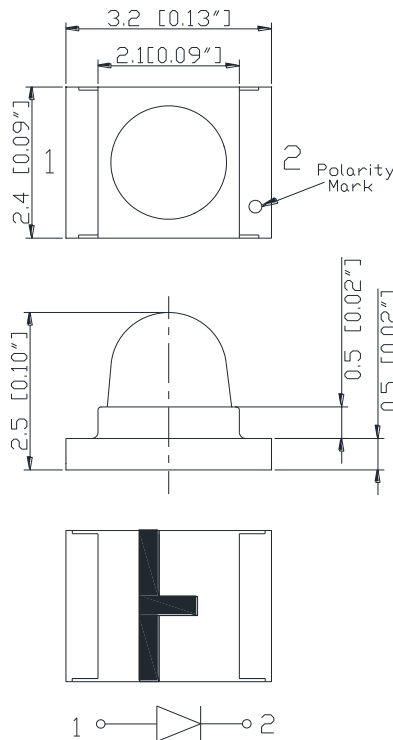
- Free air transmission system
- Optoelectronic switch
- Infrared applied system
- Smoke Detector

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.15mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)			λ _P (nm)			I _e (mW/sr)		
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
QBLP653-IR3	Infrared	20	1.0	1.5	1.8	840	850	860	1.6	3.0	6.1

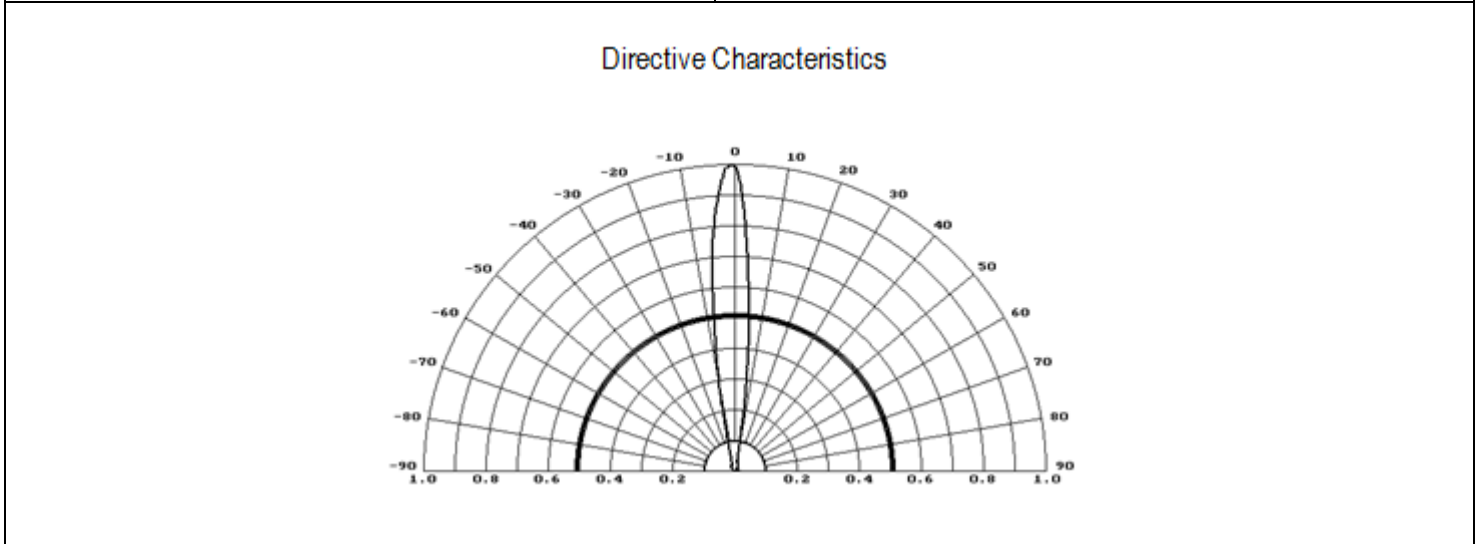
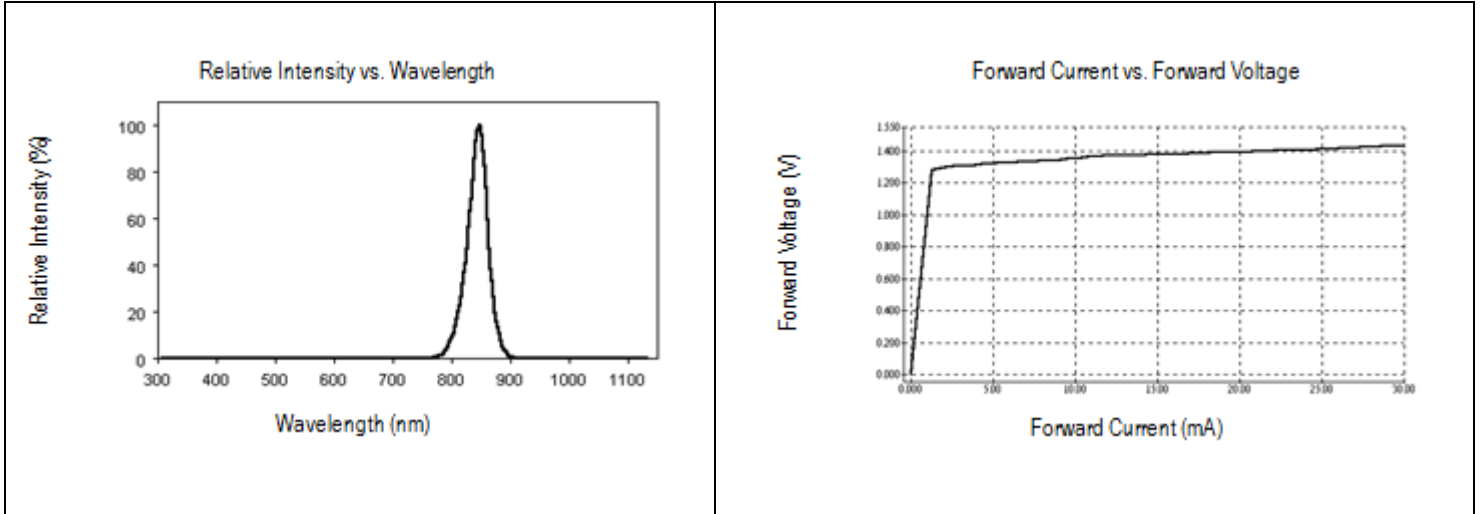
Absolute Maximum Rating

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

*Pulse width 100μs, duty cycle=1%

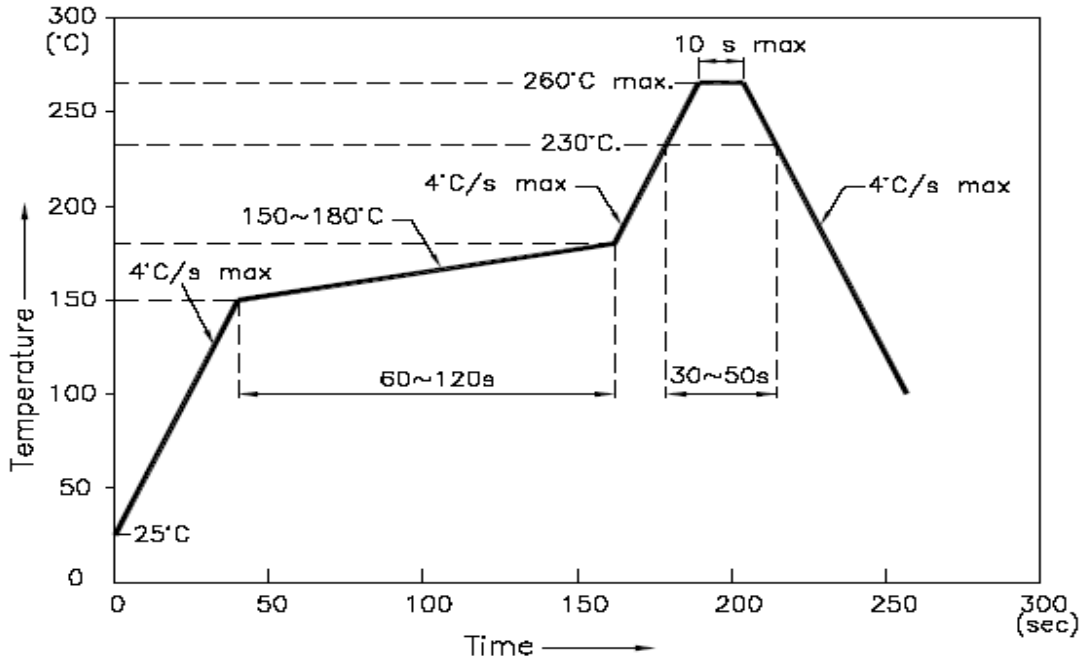
**IR Reflow for no more than 10 sec @ 260 °C

Characteristic Curves

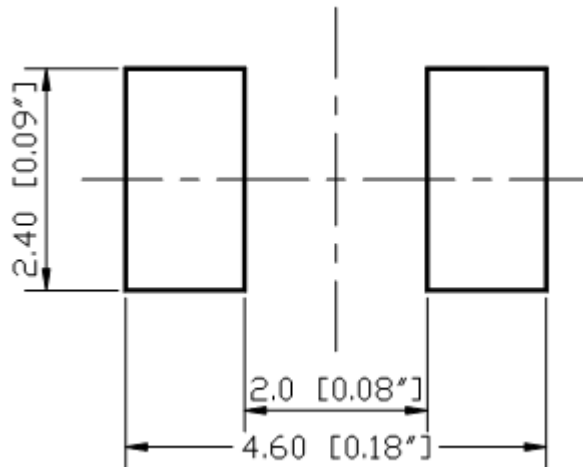


Solder Profile & Footprint

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



Recommended Pad Layout

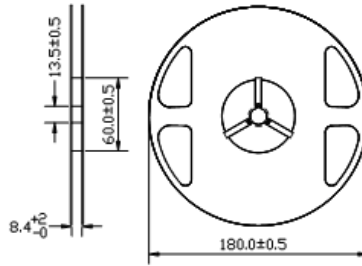


Units: mm

Tolerance: ± 0.15mm

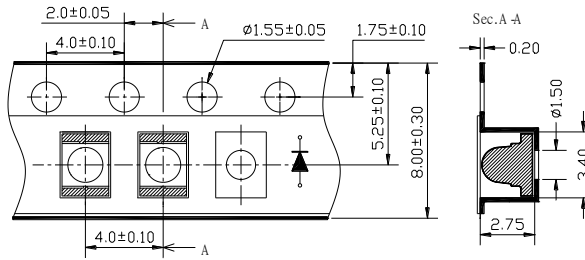
Packing

Reel Dimensions:



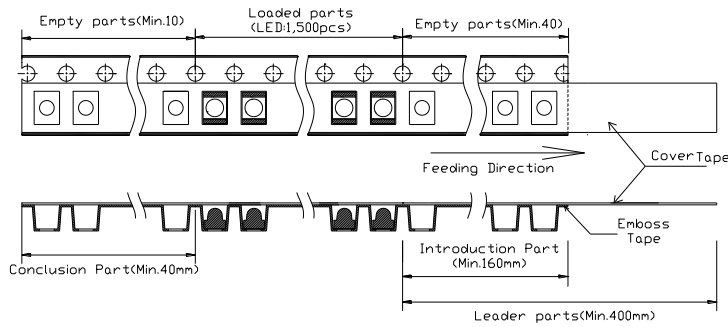
Unit: mm

Tape Dimensions:

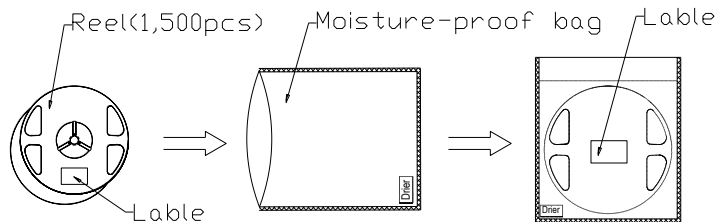


Unit: mm

Arrangement of Tape:



Packing specifications



Labeling

Part No: _____

Customer P/N: _____

Item: _____

Q'ty: _____

Vf: _____

Iv: _____

VI: _____

Date: _____

Made in China**Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP653-IR3	QBLP653-IR3	I _e =3.0mW/sr typ. @ 20mA, λ _p =850nm typ.	1,500 pcs

Revision History

Description:	Revision #	Revision Date
New Release of QBLP653-IR3	V1.0	05/11/2015
Update drawing dimension	V1.1	08/08/2017

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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.