

QT-Brightek Chip LED Series

0402 IR LED

Part No.: QBLP595-IR1

IR1: 940nm

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Introduction

Feature:

- Water clear lens
- Package in tape and reel
- 0402 LED package
- AlGaAs technology
- Viewing Angle = 140 deg typ.

Description:

These ultra bright 0402 LEDs have a height profile of 0.50mm. With higher packing density and smaller footprint, these LEDs are ideal for smaller equipment and miniature application.

Application:

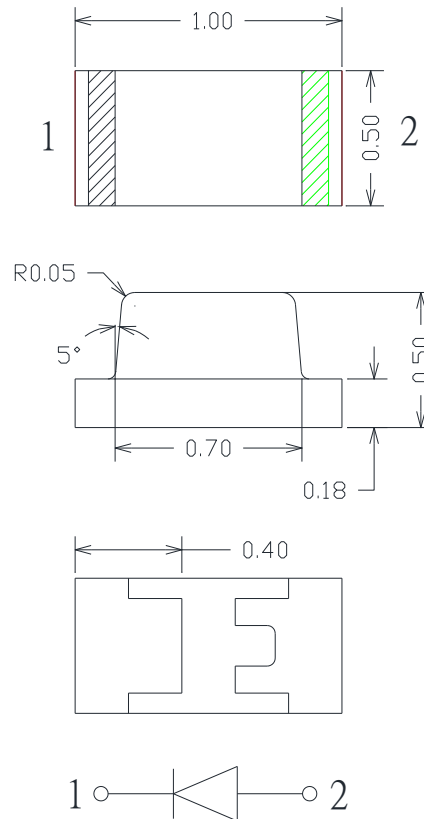
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

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.
QBLP595-IR1	Infrared	20	1.2	1.6	930	940	960	0.2	0.6

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	80	50	800	5	-40 ~ +80	-40 ~ +85	260

*Duty cycle=1%, Pulse width 100μs

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

Forward Voltage V_F @ I_F=20mA

Bin	Min.	Max.	Unit
□	0.80	1.60	V

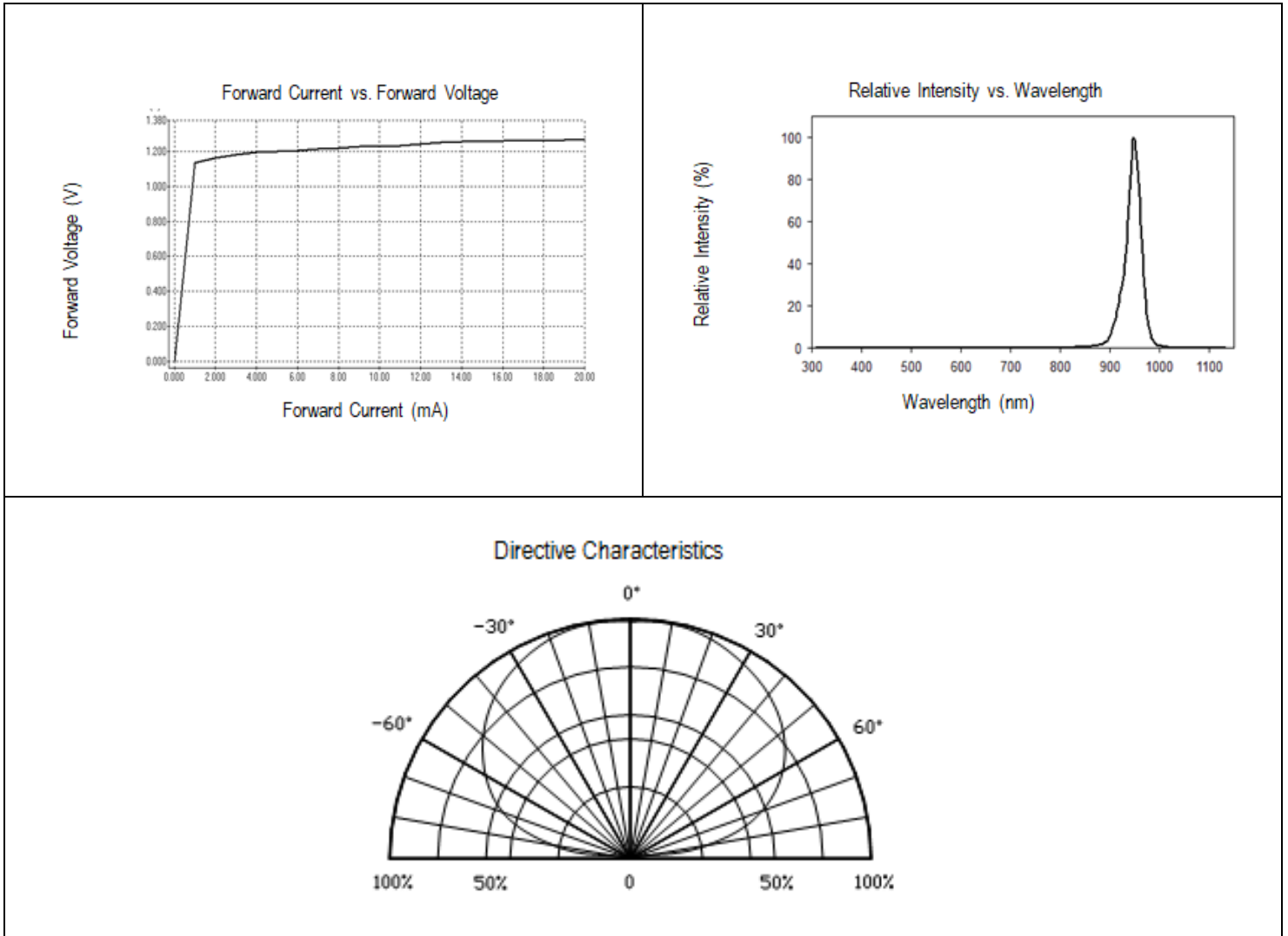
Radiant Intensity I_E @ I_F=20mA

Bin	Min.	Max.	Unit
A	0.20	0.60	mW/sr
B	0.60	1.10	
C	1.10	1.60	

Peak Wavelength λ_P @ I_F=20mA

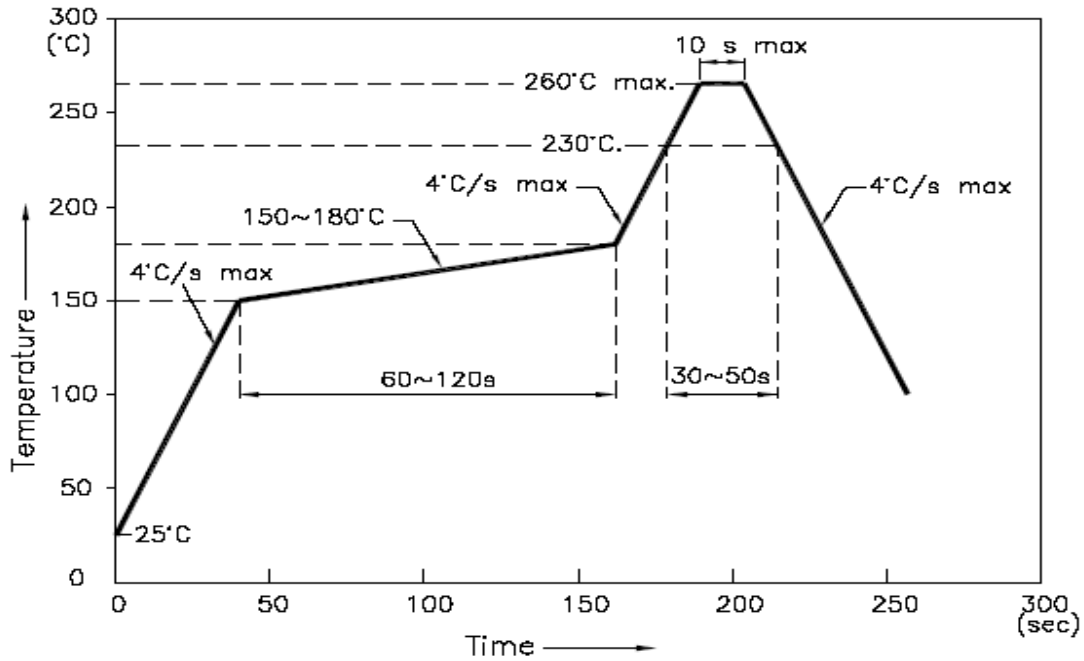
Bin	Min.	Max.	Unit
□	930	960	nm

Characteristic Curves

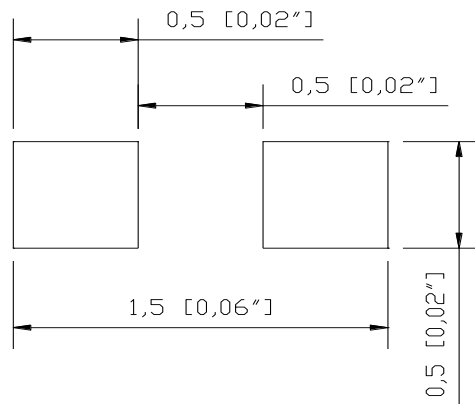


Solder Profile & Footprint

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



Recommended Pad Layout



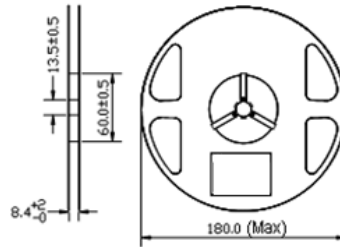
Units: mm

Tolerance:±0.1mm

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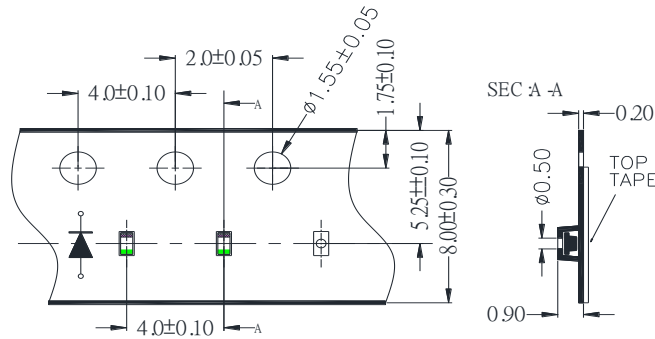
Packing

Reel Dimension:



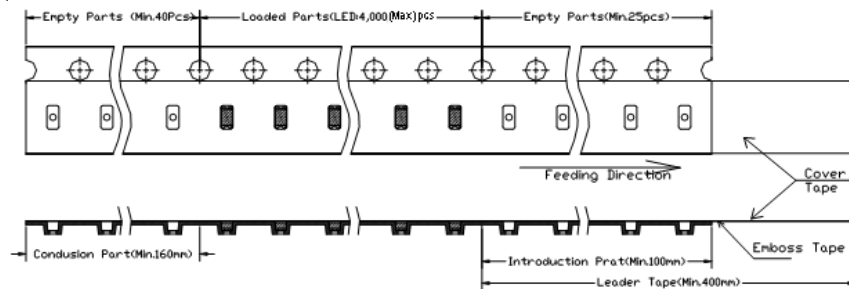
Unit: mm

Tape Dimension:

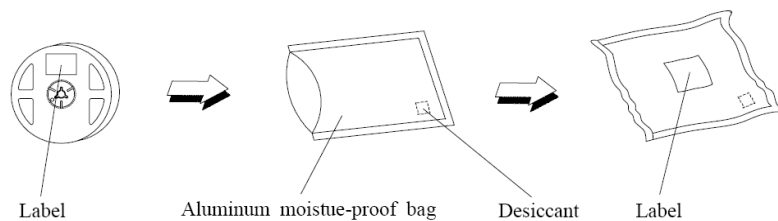


Unit: mm

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
QBLP595-IR1	QBLP595-IR1	I _e =0.6mW/sr typ. / λ _p =940nm typ. @ I _F =20mA	5,000 units

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Revision History

Description:	Revision #	Revision Date
New Release of QBLP595-IR1	V1.0	11/16/2021
Update peak wavelength range	V1.1	12/10/2021

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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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