

QT-Brightek VSCEL Series**0603 680nm VCSEL****Part No.: QBLP601E-V680A**

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Introduction

Feature:

- Water clear lens
- Package in tape and reel
- 0603 LED package
- VCSEL 680nm
- ESD Protection
- Viewing Angle: 25 degree typ.

Description:

0603 VCSEL has a height profile of 0.60mm. With higher packing density and smaller footprint, the 0603 package is ideal for smaller equipment and miniature application.

Application:

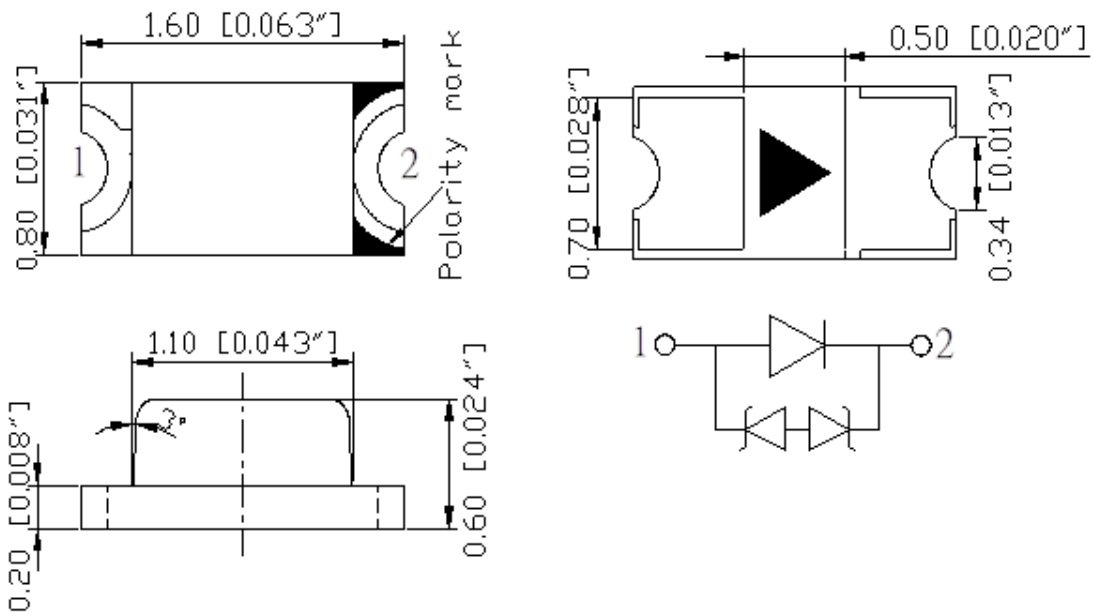
- Infrared Sensor
- Medical devices
- Consumer electronics

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.1mm

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Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)	V _F (V)		λ _P (nm)			P _o (mW)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP601E-V680A	Infrared	9	2.4	2.8	670	680	690	2.5	4

Absolute Maximum Rating

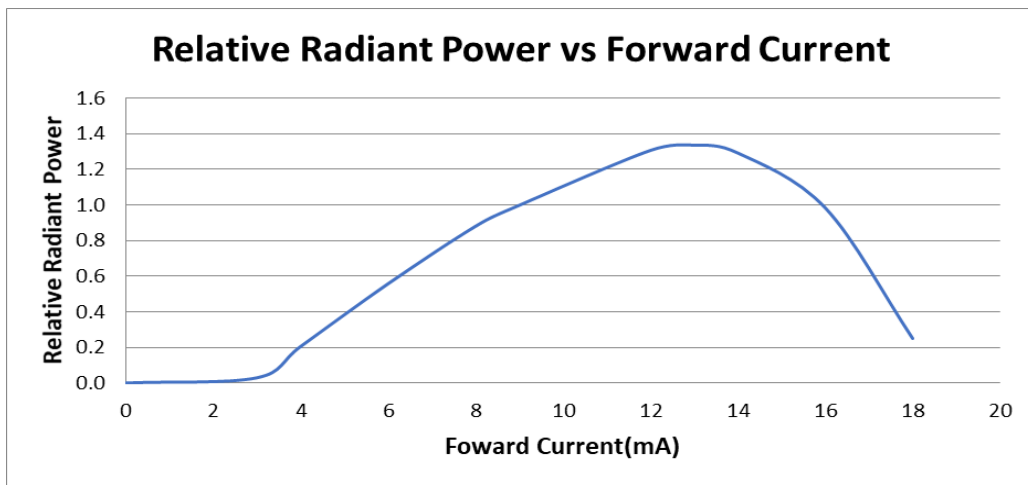
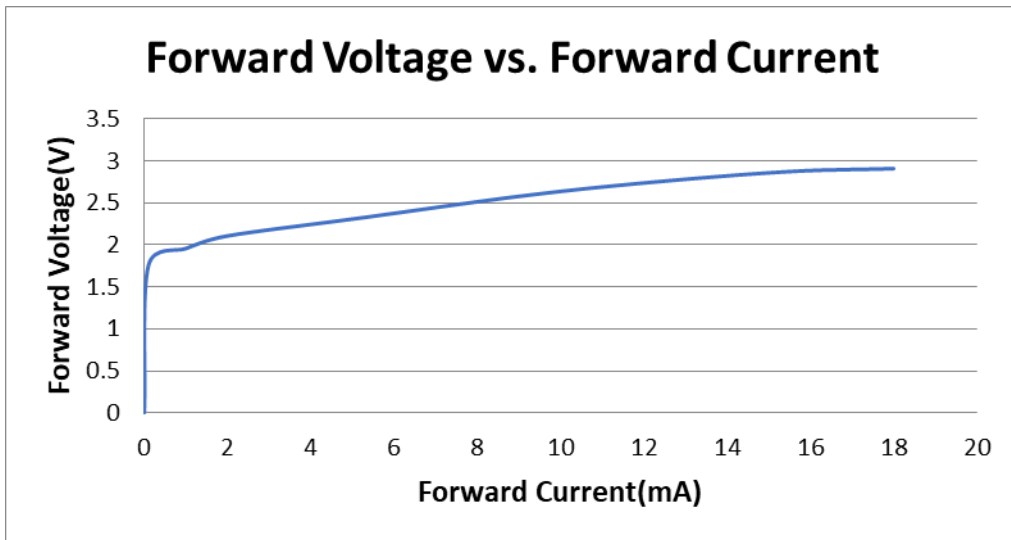
I _F (mA)	I _{PF} (mA)*	I _R (μA) @ V _R =5V	T _{OP} (°C)	T _{ST} (°C)	T _{SO L} (°C)**
9	12	1	-20 ~ +70	-40 ~ +85	260

*≤1μs pulse width, 1% Duty Cycle

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

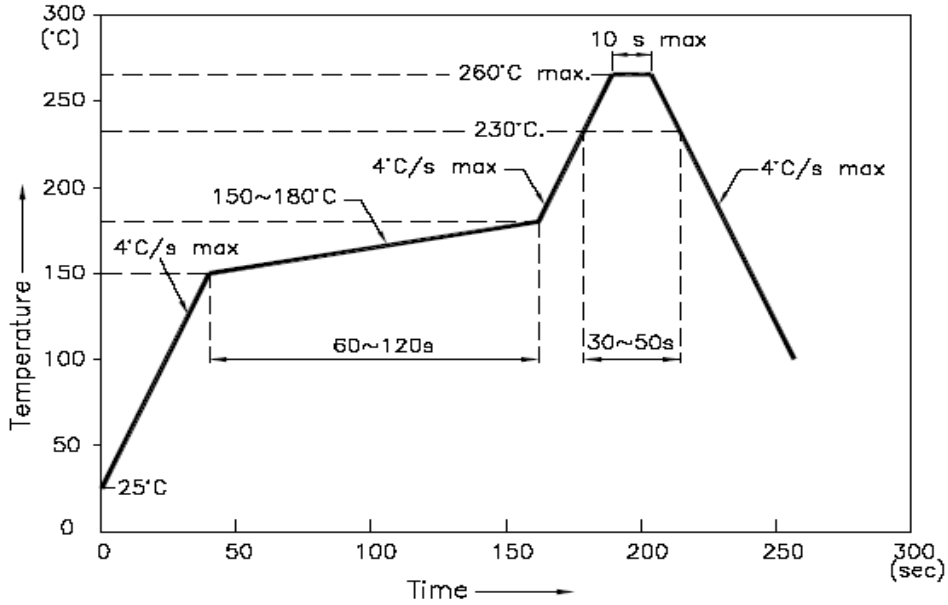
Characteristic Curves

VCSEL

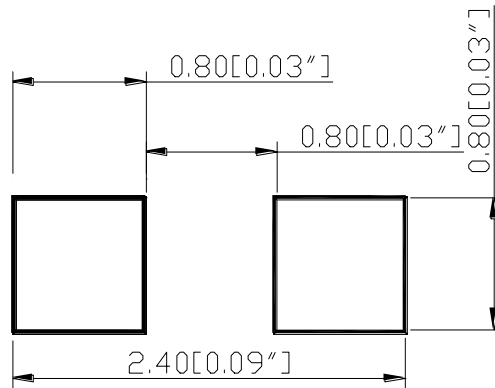


Solder Profile & Footprint

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



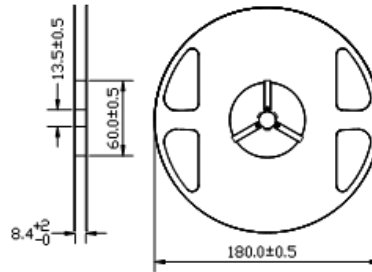
Recommended Pad Layout



Units: mm

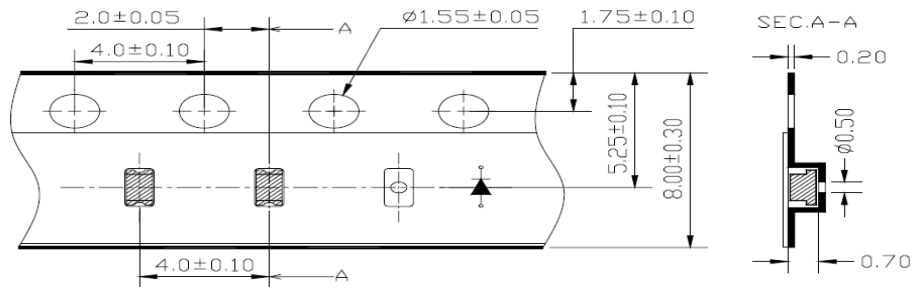
Packing

Reel Dimension:



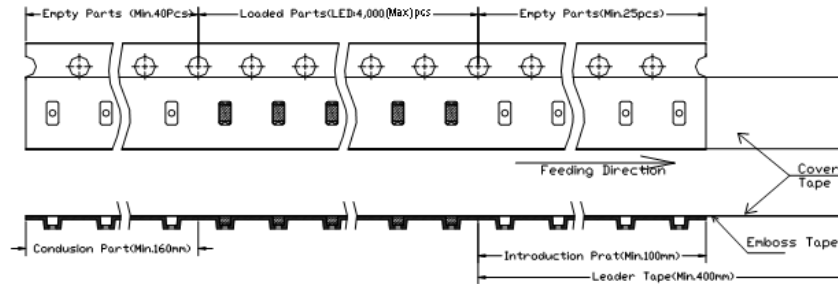
Unit: mm

Tape Dimension:

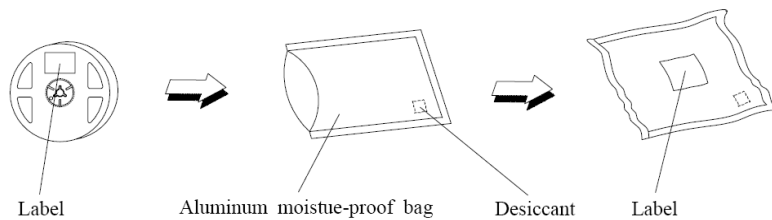


Unit: mm

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
QBLP601E-V680A	QBLP601E-V680A	P _o =4mW / λ _p =680nm @ I _F =9mA	4,000 units

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Revision History

Description:	Revision #	Revision Date
New Release of QBLP601E-V680A	V1.0	02/17/2021

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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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