

# **QT-Brightek Lamp with Housing Series**

## **3mm Round Lamp with Housing**

**Part No.: QBL7XX80D-MP4A\_series**

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**Table of Contents:**

Introduction .....	3
Electrical / Optical Characteristic (Ta=25 °C) .....	4
Absolute Maximum Rating .....	4
Characteristic Curves.....	5
Labeling .....	9
Ordering Information .....	9
Revision History .....	10
Disclaimer .....	10

## Introduction

**Feature:**

- Color Diffused lens
- Packaged in bulk pack
- 3mm round TH lamp with housing
- GaAsP technology for OA, YA
- GaP technology for YG
- AlGaAs technology for Deep red (SA)
- Viewing angle: 80° typ.

**Description:**

These 3mm round type lamps with housing is easy to mount on the panels.

**Application:**

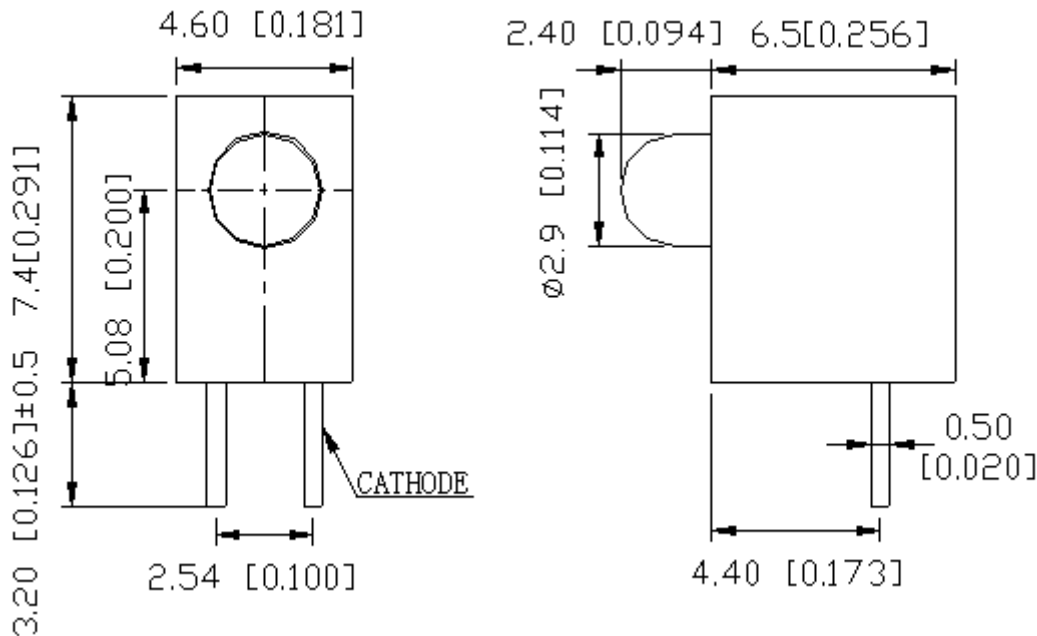
- General purpose indicator application
- Electronic instrument

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant



**Dimension:**



Units: mm / general tolerance = +/-0.5mm unless otherwise specified

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

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>D</sub> (nm)			I <sub>V</sub> (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBL7SA80D-MP4A	Deep Red	20	1.8	2.6	--	640	--	20	45
QBL7OA80D-MP4A	Orange	20	2.0	2.6	--	603	--	13	30
QBL7YA80D-MP4A	Yellow	20	2.0	2.6	--	588	--	13	20
QBL7YG80D-MP4A	GaP Green	20	2.2	2.6	--	570	--	13	30

**Absolute Maximum Rating**

Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
AlGaAs	60	25	100	5	-40 to +80	-40 to +85	260
GaAsP	78	30	100	5	-40 to +80	-40 to +85	260
GaP	78	30	100	5	-40 to +80	-40 to +85	260

\*Duty=0.1, 0.1ms Pulse Width

\*\*Wave Soldering for no more than 3 sec @ 260 °C

## Note:

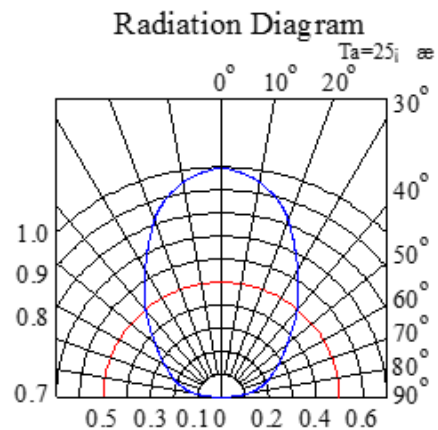
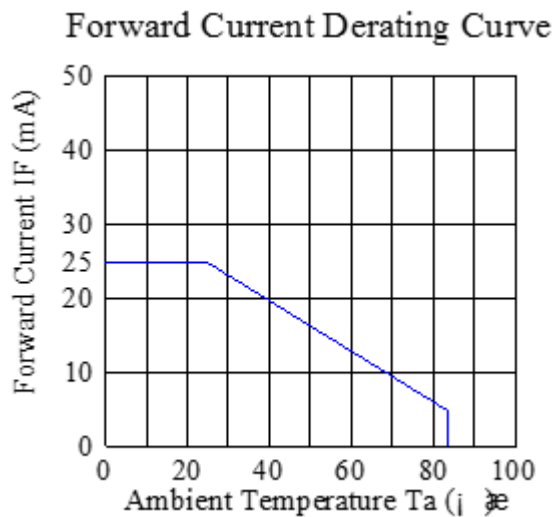
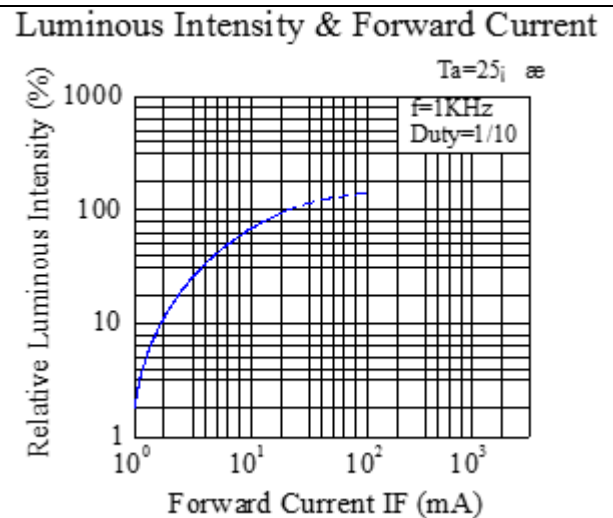
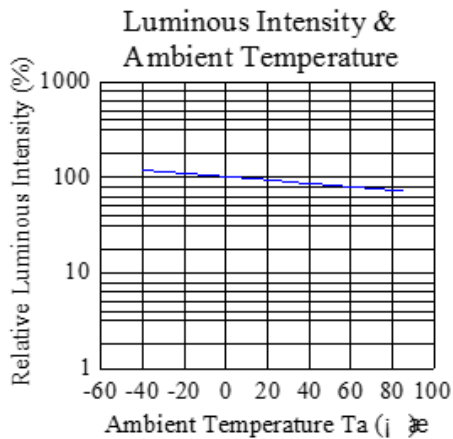
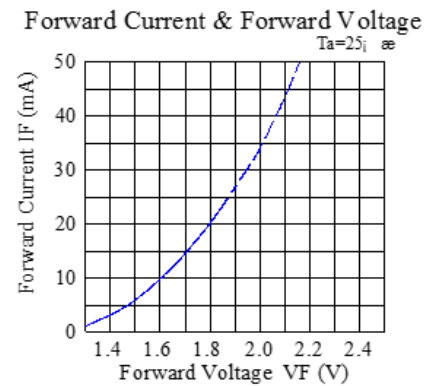
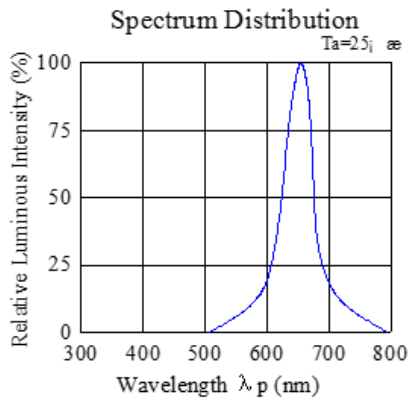
Tolerance of measurement of forward voltage: ±0.1V

Tolerance of measurement of luminous intensity: ±15%

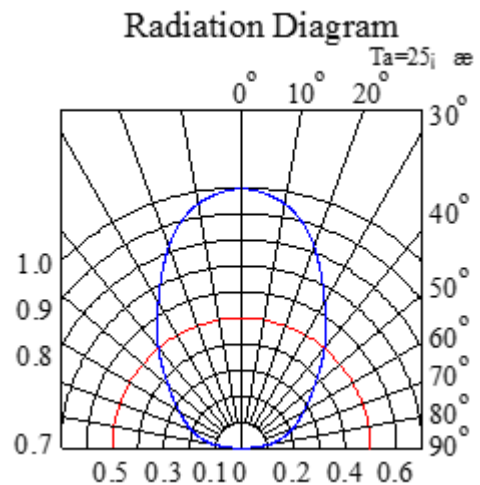
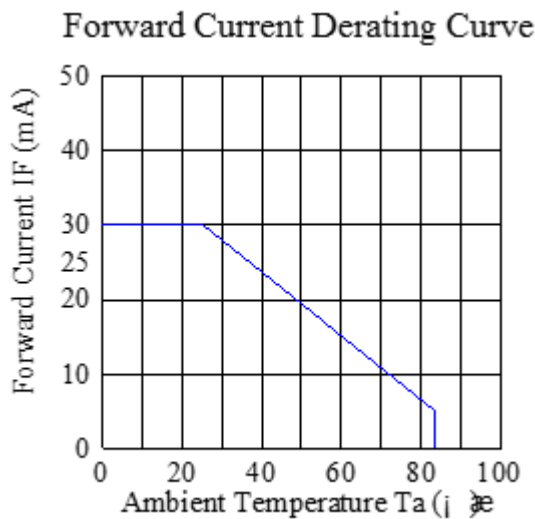
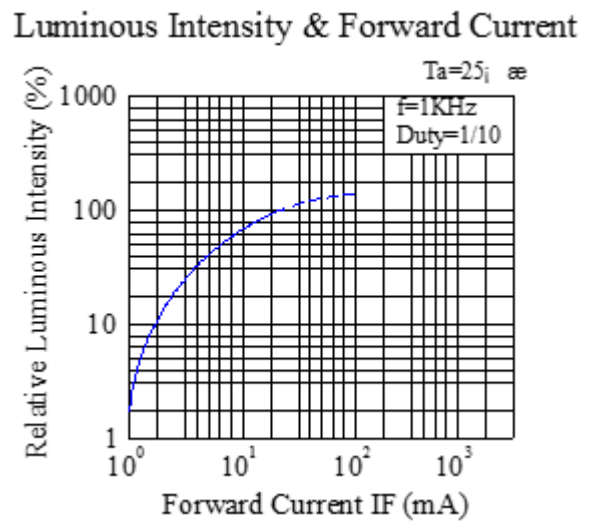
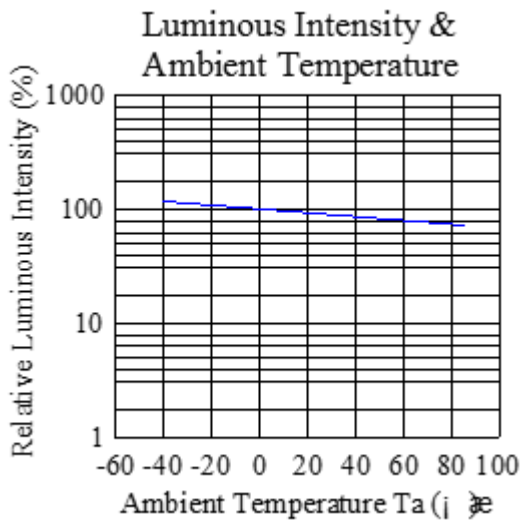
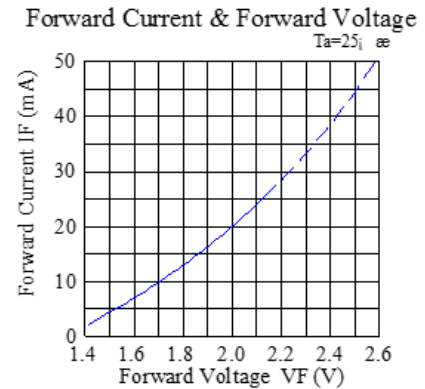
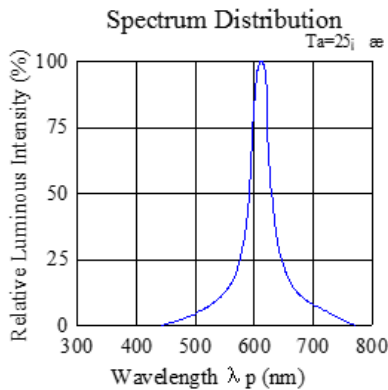
Tolerance of measurement of dominant wavelength: ±2nm

**Characteristic Curves**

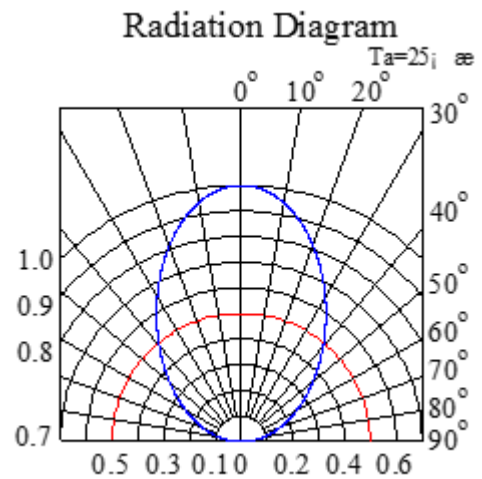
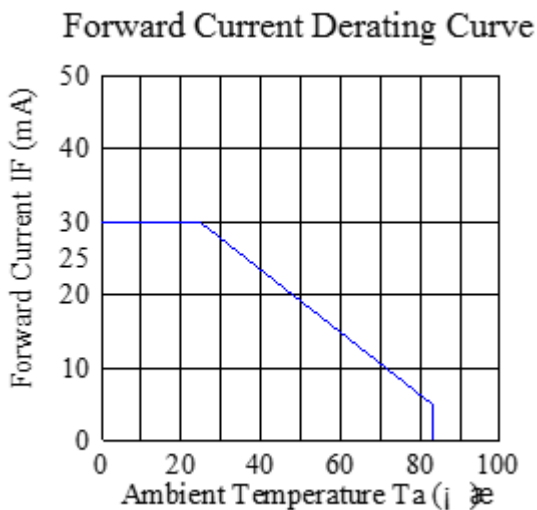
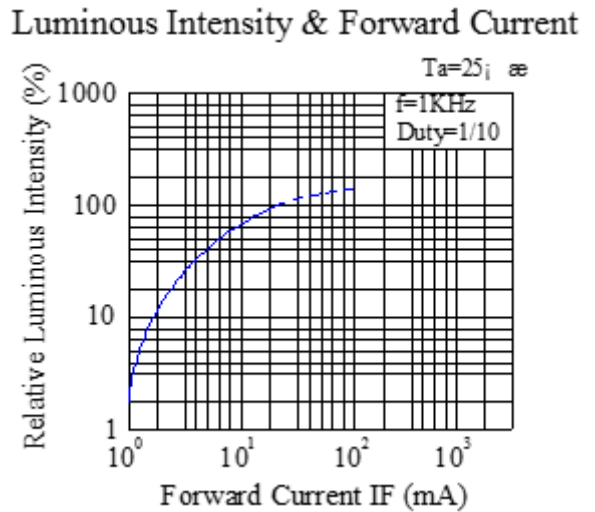
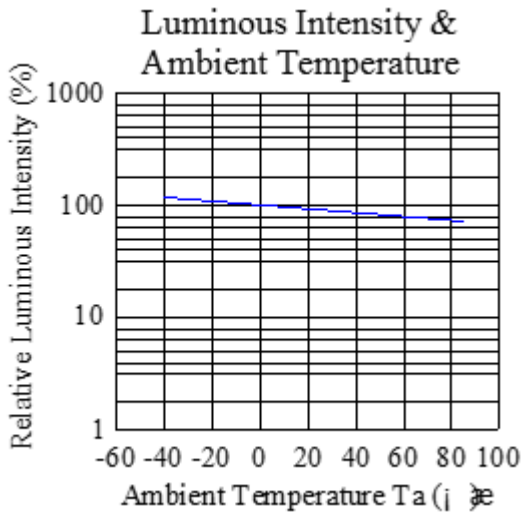
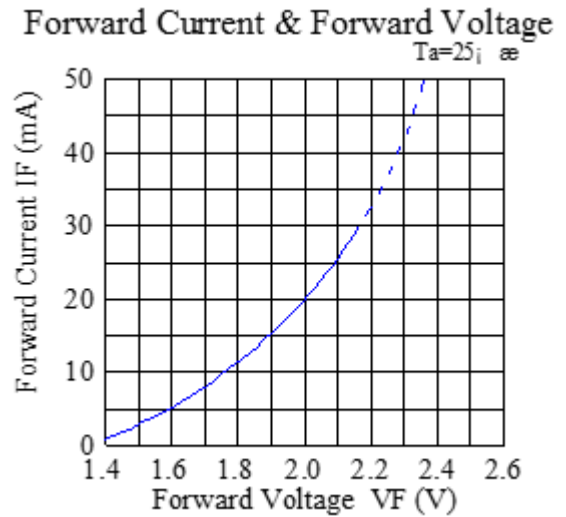
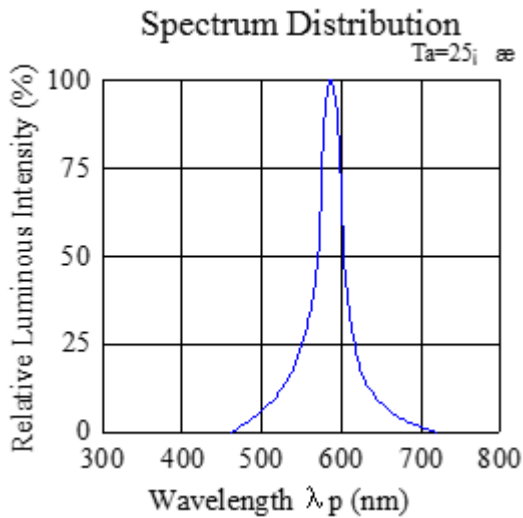
AlGaAs Deep Red



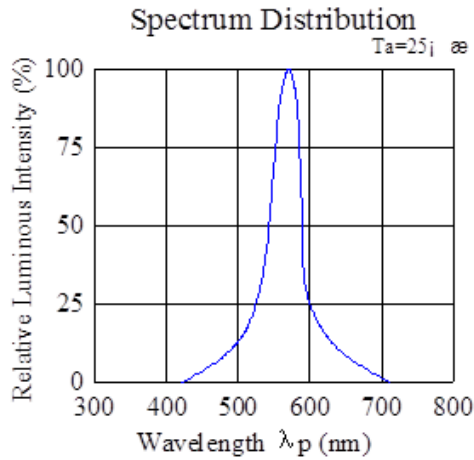
GaAsP Orange



GaAsP Yellow

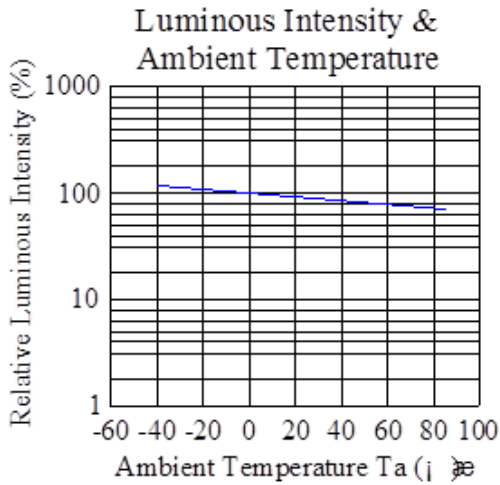
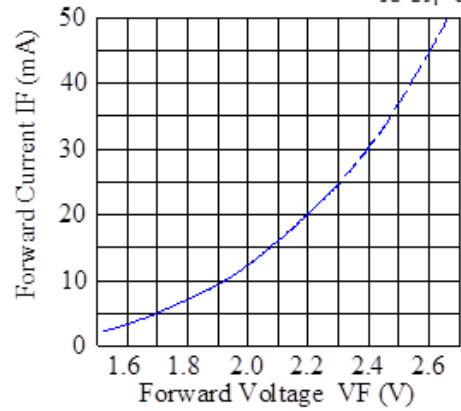


GaP Yellow-Green



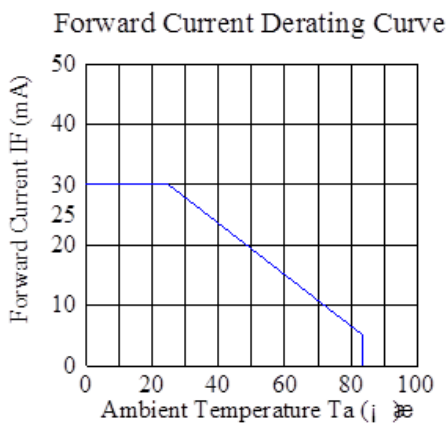
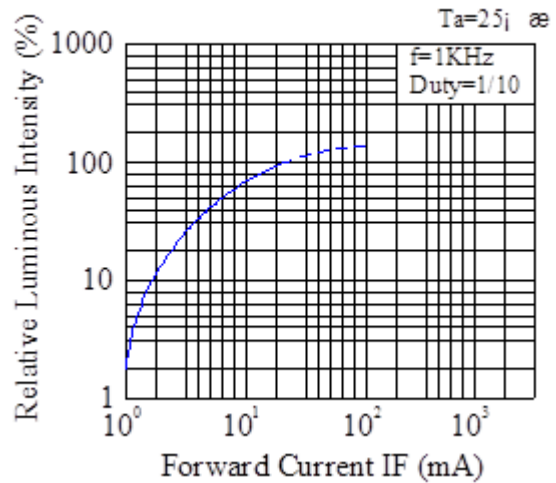
### Forward Current & Forward Voltage

$T_a=25j\text{ }^{\circ}\text{C}$



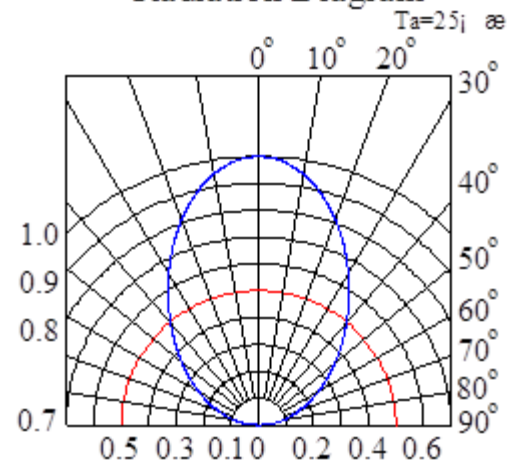
### Luminous Intensity & Forward Current

$T_a=25j\text{ }^{\circ}\text{C}$



### Radiation Diagram

$T_a=25j\text{ }^{\circ}\text{C}$





**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 bag
QBL7SA80D-MP4A	QBL7SA80D-MP4A	Iv=45mcd typ. @ 20mA, λ <sub>D</sub> =640nm typ.	500
QBL7OA80D-MP4A	QBL7OA80D-MP4A	Iv=30mcd typ. @ 20mA, λ <sub>D</sub> =603nm typ.	500
QBL7YA80D-MP4A	QBL7YA80D-MP4A	Iv=20mcd typ. @ 20mA, λ <sub>D</sub> =588nm typ.	500
QBL7YG80D-MP4A	QBL7YG80D-MP4A	Iv=30mcd typ. @ 20mA, λ <sub>D</sub> =570nm typ.	500

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## Revision History

Description:	Revision #	Revision Date
New Release of QBL7XX80D-MP4A_series	V1.0	05/27/2016

## Disclaimer

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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.