



QBOL5XX40D

5mm Oval Lamp

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# **QT-Brightek Oval Lamp Series**

## **5mm Oval Lamp**

**Part No.: QBOL5XX40D**

**XX: Color Code**

Product: QBOL5XX40D	Date: February 14, 2018	Page 1 of 8
	Version# 1.0	



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## Introduction

### Feature:

- Color Diffused lens
- Packed in bulk
- Super bright 5mm oval lamp
- AllInGaP technology for R/Y
- InGaN technology for IG/IB
- Viewing angle (X/Y): 110°/40° typ.

### Description:

These super bright 5mm oval lamps with 7mm lens height are suitable for all applications requiring higher brightness.

### Application:

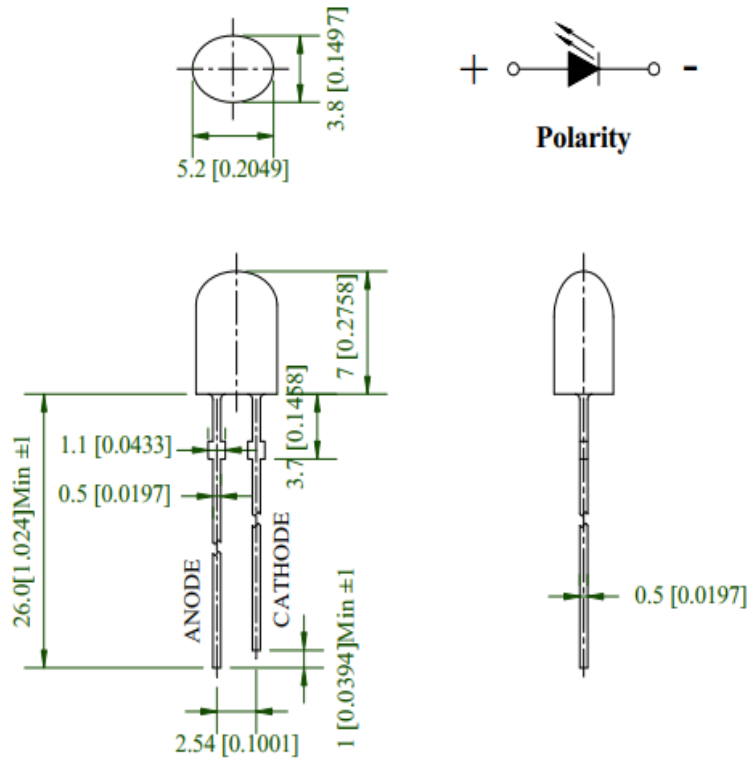
- Electronic signs and electronics board
- LED lighting

### Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / tolerance = +/-0.25mm

**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.	Typ.	Min.	Typ.
QBOL5R40D	Red	20	2.0	2.6	624	780	1300
QBOL5Y40D	Yellow	20	2.0	2.6	590	600	1000
QBOL5IG40D	True Green	20	3.2	3.6	525	1700	2900
QBOL5IB40D	Blue	20	3.2	3.6	470	460	780

**Absolute Maximum Rating**

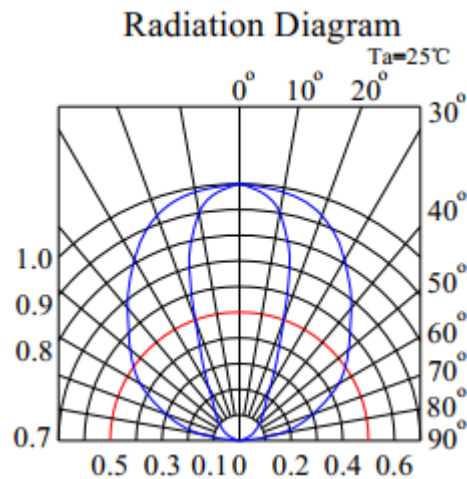
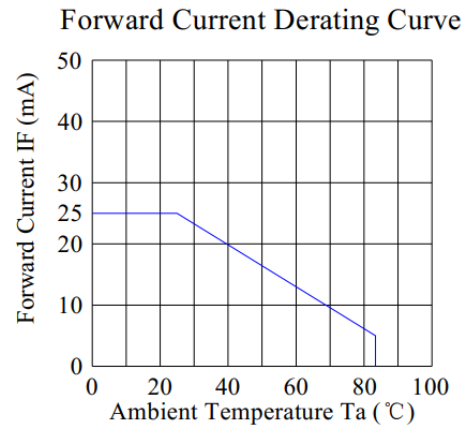
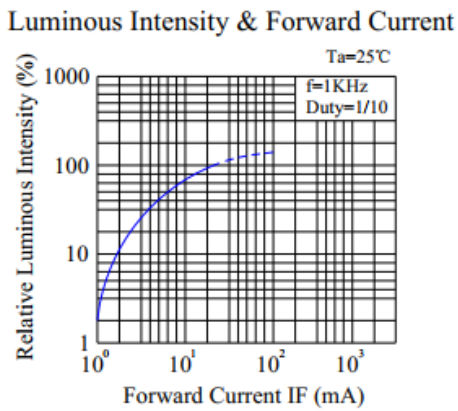
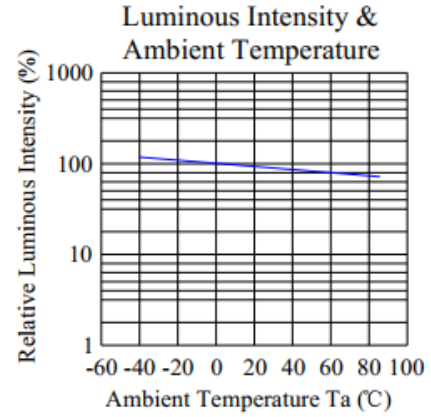
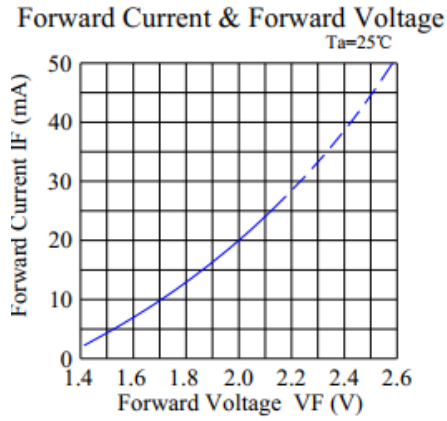
Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
AllnGaP	65	25	100	5	-40 to +85	-40 to +100	260
InGaN	90	25	100	5	-40 to +85	-40 to +100	260

\*1/10 Duty Cycle, 0.1ms Pulse Width

\*\* Wave Soldering for no more than 5 sec @ 260 °C

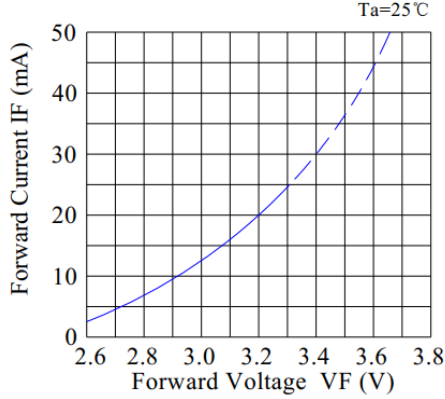
## Characteristic Curves

AllnGaP

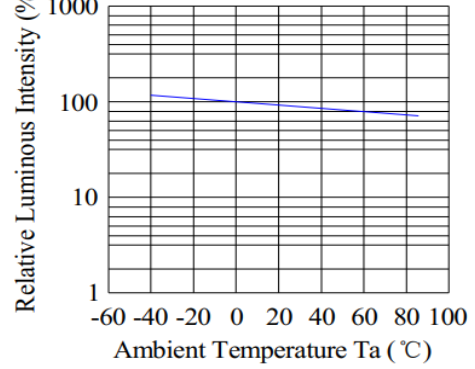


InGaN

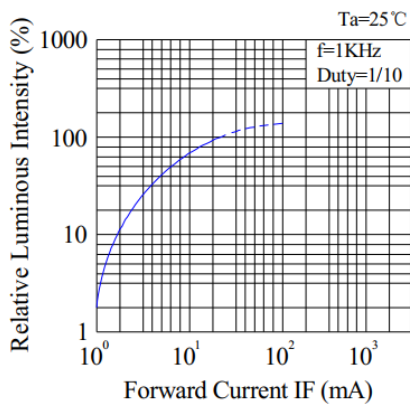
Forward Current & Forward Voltage



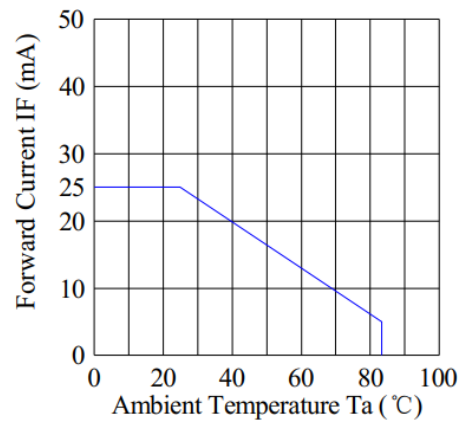
Luminous Intensity & Ambient Temperature



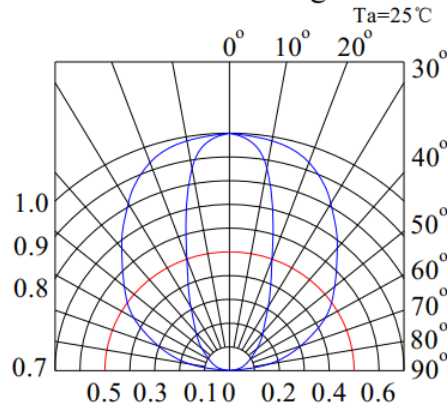
Luminous Intensity & Forward Current



Forward Current Derating Curve



Radiation Diagram





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**Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per bag
QBOL5R40D	QBOL5R40D	I <sub>v</sub> =1300mcd typ. @ I <sub>F</sub> =20mA, λ <sub>D</sub> =624nm typ.	500
QBOL5Y40D	QBOL5Y40D	I <sub>v</sub> =1000mcd typ. @ I <sub>F</sub> =20mA, λ <sub>D</sub> =590nm typ.	500
QBOL5IG40D	QBOL5IG40D	I <sub>v</sub> =2900mcd typ. @ I <sub>F</sub> =20mA, λ <sub>D</sub> =525nm typ.	500
QBOL5IB40D	QBOL5IB40D	I <sub>v</sub> =780mcd typ. @ I <sub>F</sub> =20mA, λ <sub>D</sub> =470nm typ.	500



### Revision History

Description:	Revision #	Revision Date
New Release of QBOL4XX40D Series	V1.0	02/14/2018

### 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.