



QBOL4XX40D

4mm Oval Lamp

QT-Brightek Oval Lamp Series

4mm Oval Lamp

Part No.: QBOL4XX40D

XX: Color Code

Product: QBOL4XX40D	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 4mm 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 7.8 mm lens height are suitable for all applications requiring higher brightness.

Application:

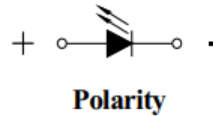
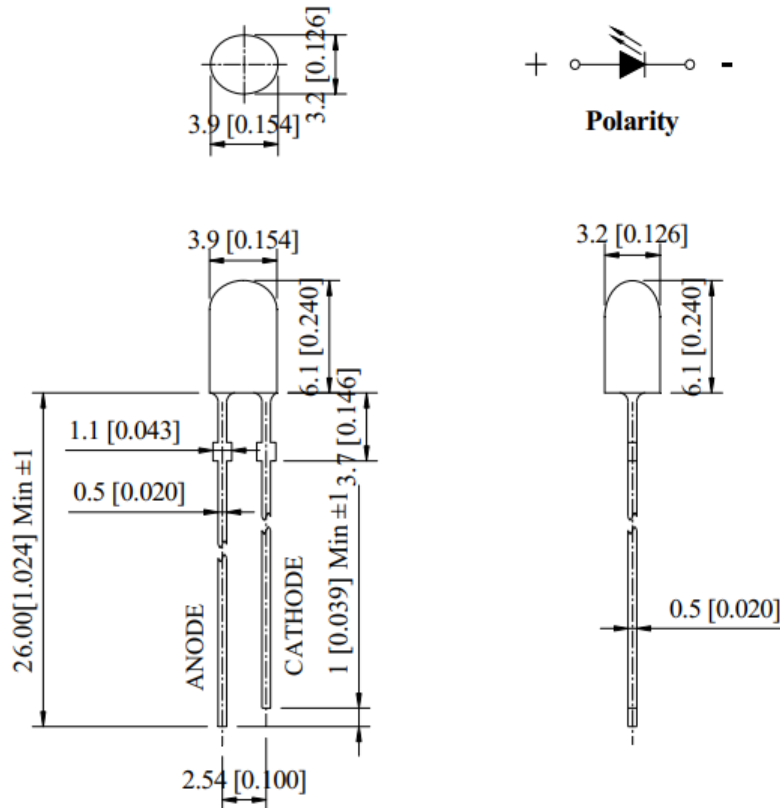
- Electronic signs and electronics board
- LED lighting

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.25mm

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

Product	Color	I _F (mA)	V _F (V)		λ _D (nm)	I _V (mcd)	
			Typ.	Max.	Typ.	Min.	Typ.
QBOL4R40D	Red	20	2.0	2.6	624	780	1300
QBOL4Y40D	Yellow	20	2.0	2.6	590	780	1300
QBOL4IG40D	True Green	20	3.2	3.6	525	2200	3800
QBOL4IB40D	Blue	20	3.2	3.6	470	350	600

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)**
AllnGaP	65	25	100	5	-40 to +85	-40 to +100	260
InGaN	90	25	100	5	-40 to +85	-40 to +100	260

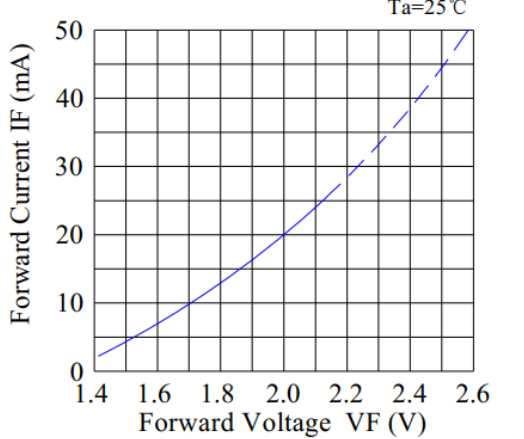
*1/10 Duty Cycle, 0.1ms Pulse Width

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

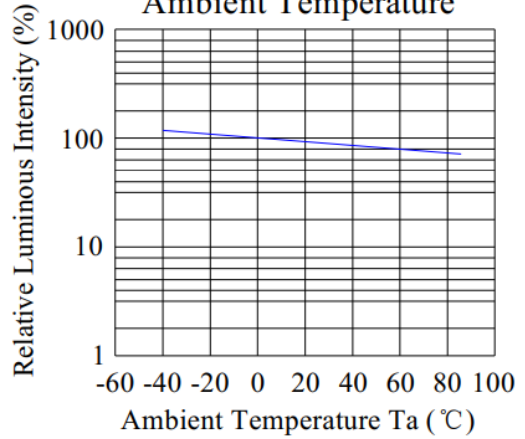
Characteristic Curves

AllnGaP

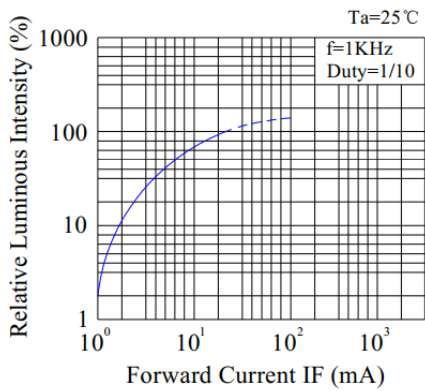
Forward Current & Forward Voltage



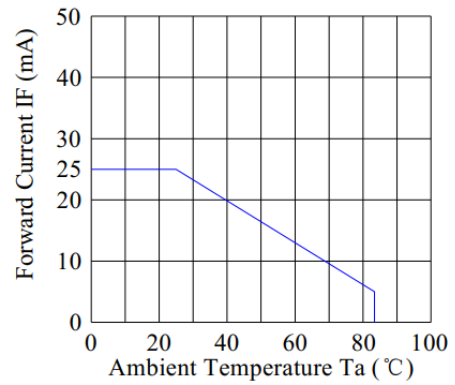
Luminous Intensity & Ambient Temperature



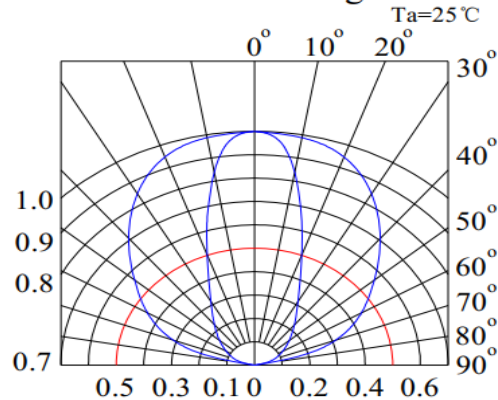
Luminous Intensity & Forward Current



Forward Current Derating Curve

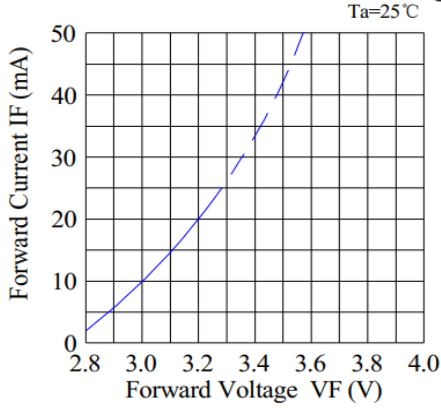


Radiation Diagram

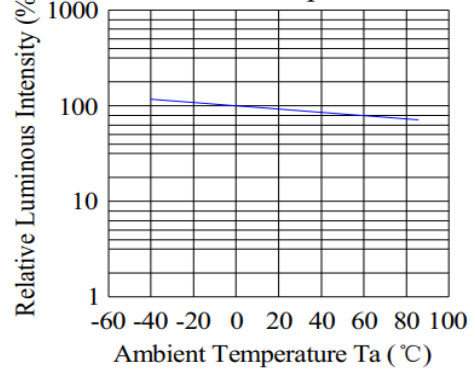


InGaN

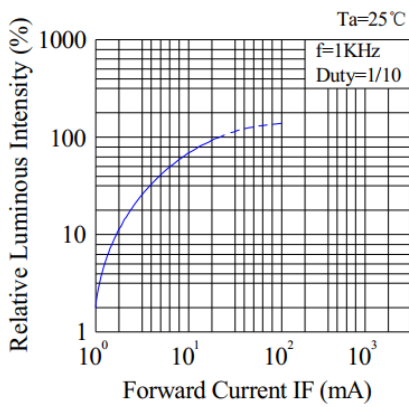
Forward Current & Forward Voltage



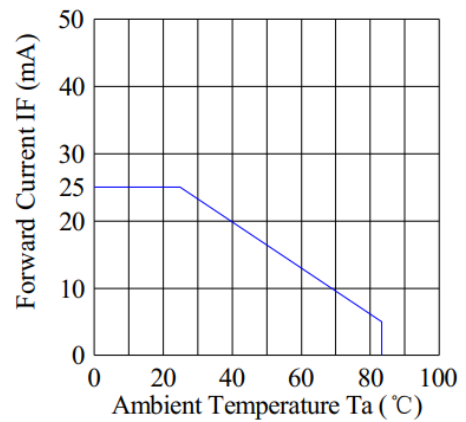
Luminous Intensity & Ambient Temperature



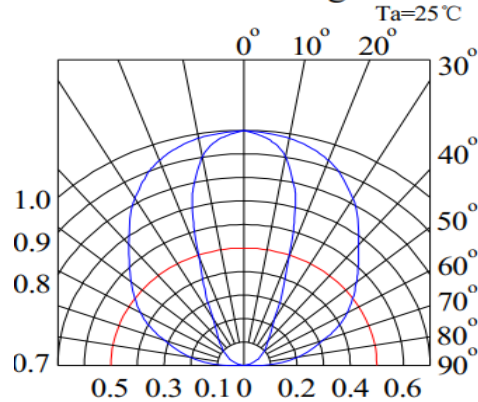
Luminous Intensity & Forward Current



Forward Current Derating Curve



Radiation Diagram





Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per bag
QBOL4R40D	QBOL4R40D	I _v =1300mcd typ. @ I _F =20mA, λ _D =624nm typ.	500
QBOL4Y40D	QBOL4Y40D	I _v =1300mcd typ. @ I _F =20mA, λ _D =590nm typ.	500
QBOL4IG40D	QBOL4IG40D	I _v =3800mcd typ. @ I _F =20mA, λ _D =525nm typ.	500
QBOL4IB40D	QBOL4IB40D	I _v =600mcd typ. @ I _F =20mA, λ _D =470nm typ.	500



Revision History

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

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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.