

QT-Brightek Lamp Series

3mm Round Lamp

Part No.: QBL7XX60D

XX: Color Code

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Introduction

Feature:

- Color diffused lens
- Packed in bulk
- 3mm round lamp
- AlInGaP technology for R/O/Y/AG
- InGaN technology for IG/IB
- Viewing angle: 60° typ.

Description:

These bright 3mm round type lamps are suitable for all indicator applications such as electronic signs and electronic board indicator.

Application:

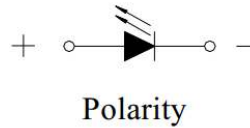
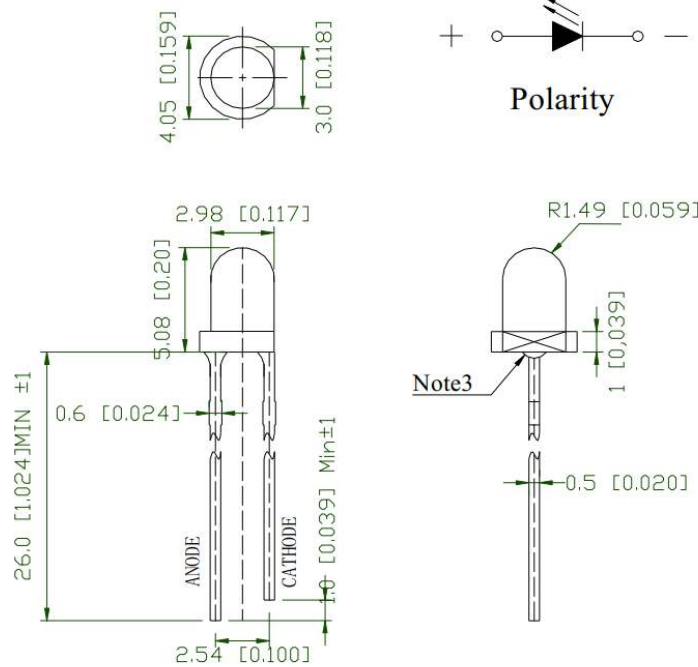
- General purpose indicator application
- Electronic signs and electronics board
- LED lighting

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / general tolerance = +/-0.25mm unless otherwise specified

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.
QBL7R60D	Red	20	2.0	2.6	624	210	350
QBL7O60D	Orange	20	2.0	2.6	605	90	160
QBL7Y60D	Yellow	20	2.0	2.6	590	210	350
QBL7AG60D	Yellow Green	20	2.0	2.6	573	70	120
QBL7IG60D	True Green	20	3.2	3.6	525	2900	5000
QBL7IB60D	Blue	20	3.2	3.6	470	780	1300

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

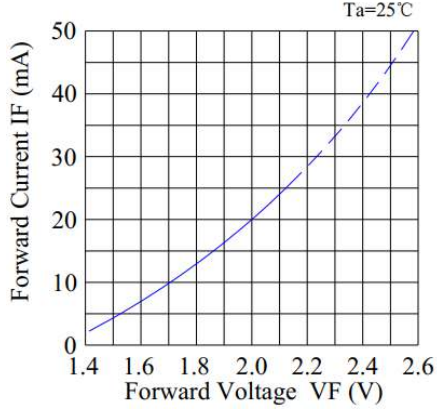
*1/10 Duty Cycle, 0.1ms Pulse Width

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

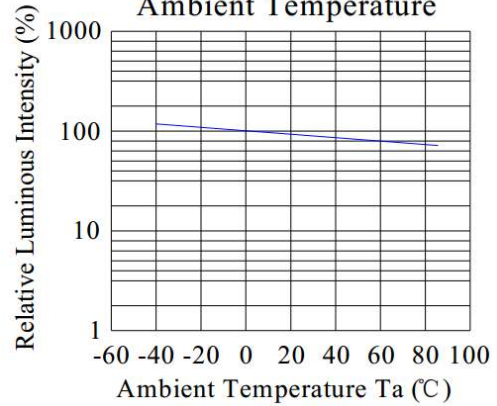
Characteristic Curves

AllnGaP (R/O/Y/AG)

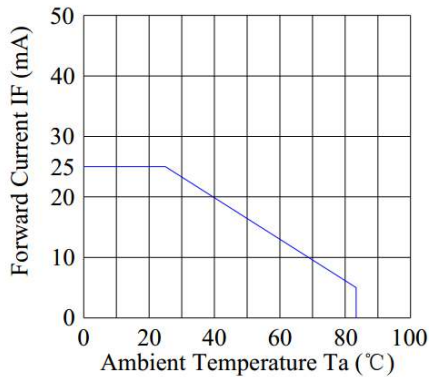
Forward Current & Forward Voltage



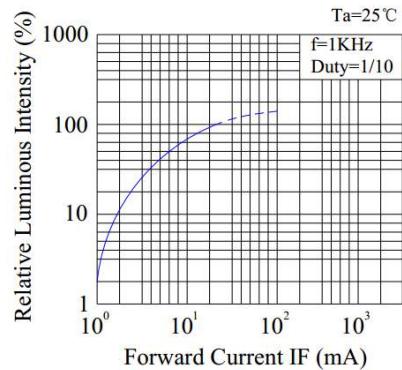
Luminous Intensity & Ambient Temperature



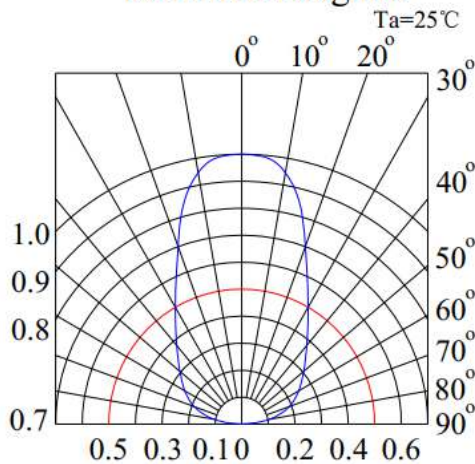
Forward Current Derating Curve



Luminous Intensity & Forward Current

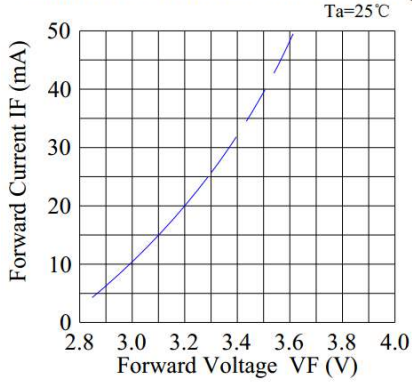


Radiation Diagram

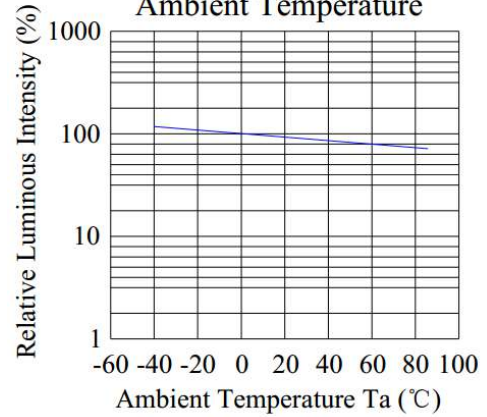


InGaN (IG/IB)

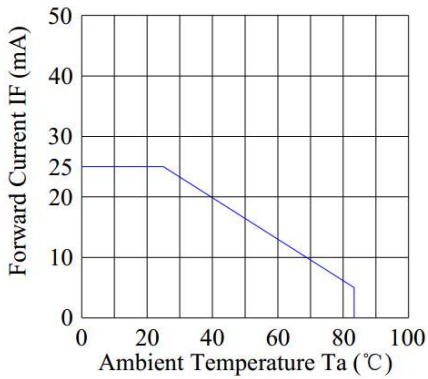
Forward Current & Forward Voltage



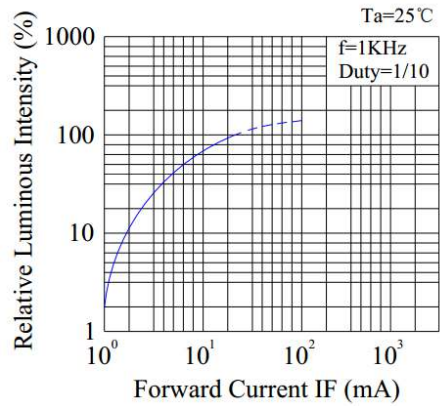
Luminous Intensity & Ambient Temperature



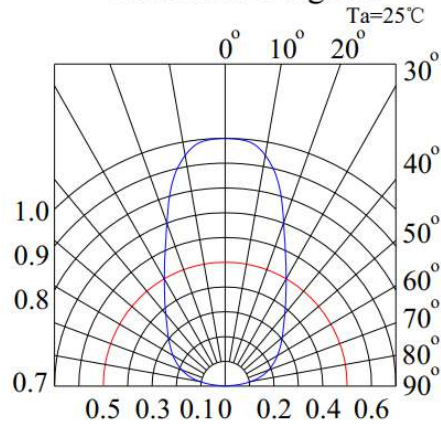
Forward Current Derating Curve



Luminous Intensity & Forward Current



Radiation Diagram



Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per bag
QBL7R60D	QBL7R60D	Iv=350mcd typ. @ 20mA, $\lambda_D=624\text{nm}$ typ.	500pcs
QBL7O60D	QBL7O60D	Iv=160mcd typ. @ 20mA, $\lambda_D=605\text{nm}$ typ.	500pcs
QBL7Y60D	QBL7Y60D	Iv=350mcd typ. @ 20mA, $\lambda_D=590\text{nm}$ typ.	500pcs
QBL7AG60D	QBL7AG60D	Iv=120mcd typ. @ 20mA, $\lambda_D=573\text{nm}$ typ.	500pcs
QBL7IG60D	QBL7IG60D	Iv=5000mcd typ. @ 20mA, $\lambda_D=525\text{nm}$ typ.	500pcs
QBL7IB60D	QBL7IB60D	Iv=1300mcd typ. @ 20mA, $\lambda_D=470\text{nm}$ typ.	500pcs

Revision History

Description:	Revision #	Revision Date
New Release of QBL7XX60D_Series	V1.0	09/20/2010
Update spec and drawing dimension	V2.0	03/02/2018

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.