



**THE DATASHEET OF  
QBL8IG60D**



# **QT-Brightek Lamp Series**

## **5mm Round Lamp**

**Part No.: QBL8XX60D**

**XX: Color Code**

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## Introduction

### Feature:

- Color diffused lens
- Packaged in bulk pack
- 5mm round lamp
- Viewing angle: 60° typ.

### Description:

These bright 5mm round type lamps are suitable for all indicator applications such as electronic signs and electronic board indicator.

### Application:

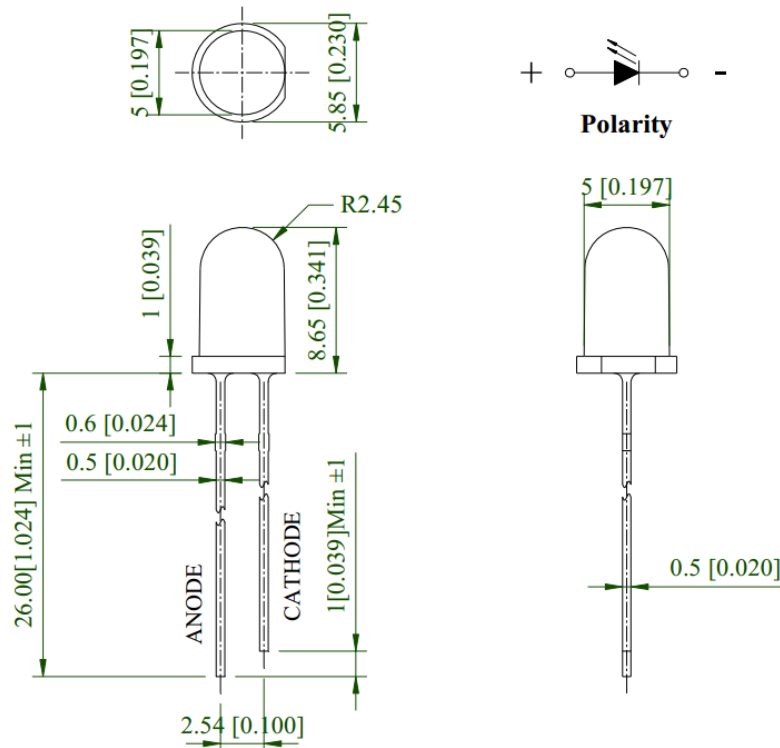
- General purpose indicator application
- Electronic signs and electronics board
- LED lighting

### Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



## Dimension:



**Polarity**

Units: mm / general tolerance = +/-0.25mm 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.	Typ.	Min.	Typ.
QBL8R60D	Red	20	2.0	2.6	624	210	350
QBL8S60D	Deep Red	20	2.0	2.6	630	90	160
QBL8O60D	Orange	20	2.0	2.6	605	70	120
QBL8Y60D	Yellow	20	2.0	2.6	590	160	210
QBL8AG60D	Yellow Green	20	2.0	2.6	573	45	70
QBL8IG60D	True Green	20	3.2	3.6	525	1000	1700
QBL8IB60D	Blue	20	3.2	3.6	470	350	600

### 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	95	25	100	5	-40 to +85	-40 to +100	260

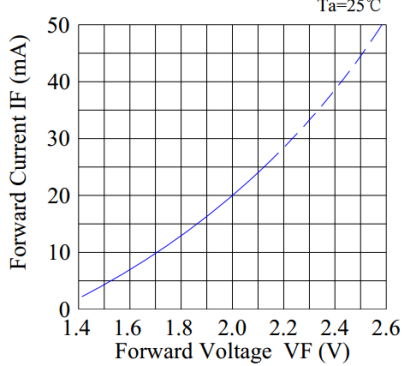
\*1/10 Duty Cycle, 0.1ms Pulse Width

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

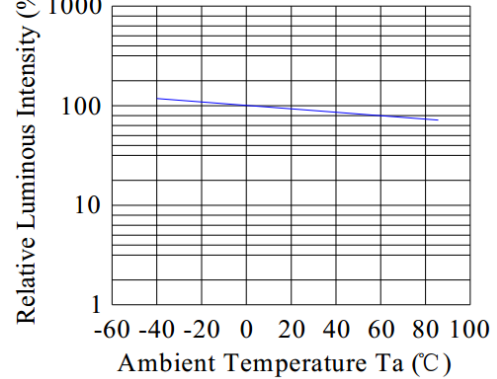
## Characteristic Curves

AllnGaP (R/S/AG/O/Y)

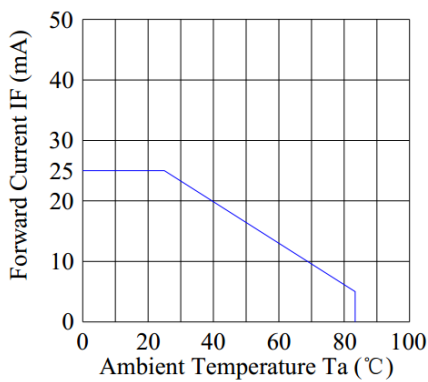
Forward Current & Forward Voltage



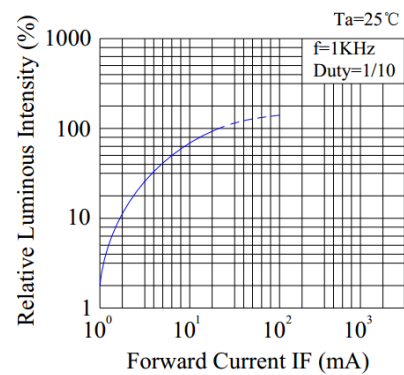
Luminous Intensity & Ambient Temperature



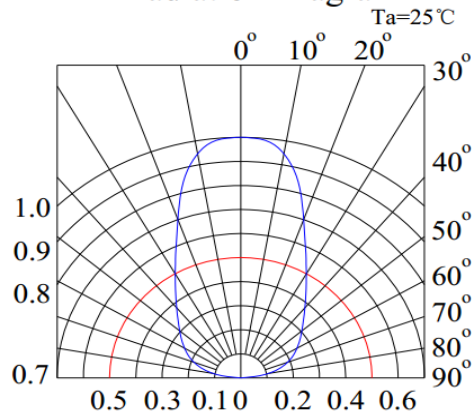
Forward Current Derating Curve



Luminous Intensity & Forward Current

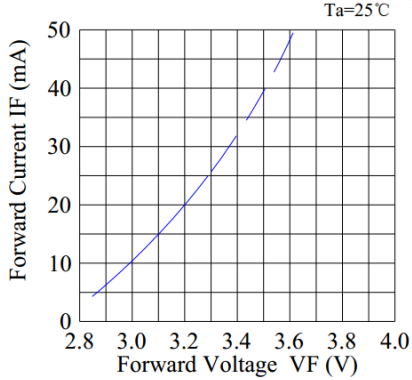


Radiation Diagram

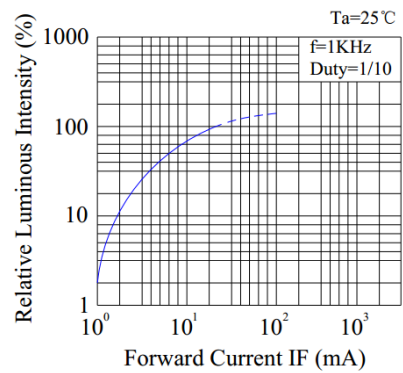


InGaN (IG/IB)

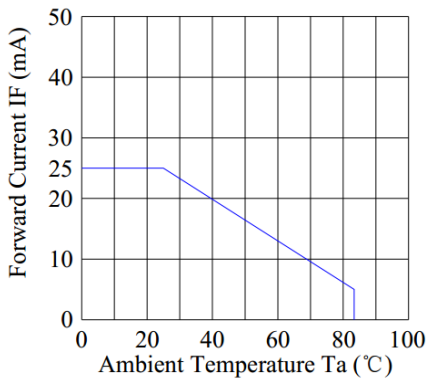
Forward Current & Forward Voltage



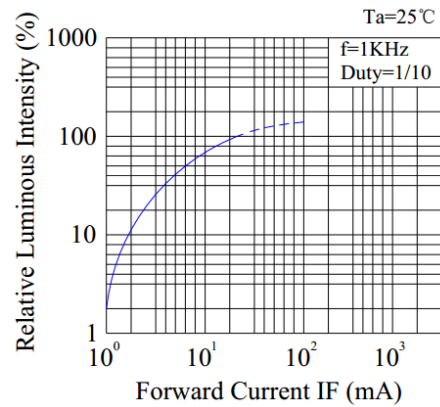
Luminous Intensity & Forward Current



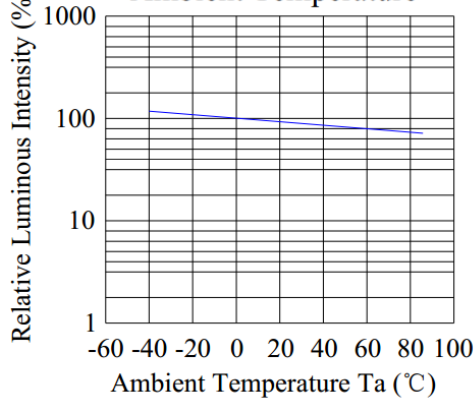
Forward Current Derating Curve



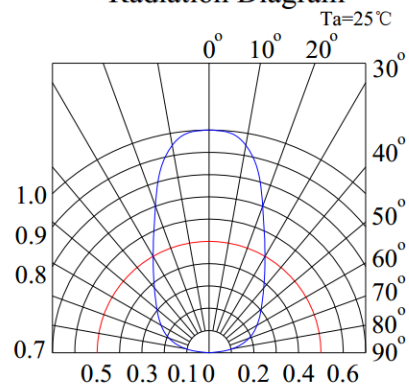
Luminous Intensity & Forward Current



Luminous Intensity & Ambient Temperature



Radiation Diagram



**Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per bag
QBL8R60D	QBL8R60D	Iv=350mcd typ. @ 20mA, $\lambda_D=624\text{nm}$ typ.	500pcs
QBL8S60D	QBL8S60D	Iv=160mcd typ. @ 20mA, $\lambda_D=630\text{nm}$ typ.	500pcs
QBL8O60D	QBL8O60D	Iv=120mcd typ. @ 20mA, $\lambda_D=605\text{nm}$ typ.	500pcs
QBL8Y60D	QBL8Y60D	Iv=210mcd typ. @ 20mA, $\lambda_D=590\text{nm}$ typ.	500pcs
QBL8AG60D	QBL8AG60D	Iv=70mcd typ. @ 20mA, $\lambda_D=573\text{nm}$ typ.	500pcs
QBL8IG60D	QBL8IG60D	Iv=1700mcd typ. @ 20mA, $\lambda_D=525\text{nm}$ typ.	500pcs
QBL8IB60D	QBL8IB60D	Iv=600mcd typ. @ 20mA, $\lambda_D=470\text{nm}$ typ.	500pcs

## Revision History

Description:	Revision #	Revision Date
New Release of QBL8XX60D	V1.0	11/16/2017

## Disclaimer

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QT-BRIGHTTEK's products are not authorized for use as critical components in life support devices or systems without the express written approval of QT-BRIGHTTEK. As used herein:

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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-  [QT Brightek \(QTB\) Information](#)

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-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management