

# **QT-Brightek Lamp Series**

## **5mm Round LED**

**Part No.: QBL8XX30C\_series**

**XX: Color Code**

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## Introduction

### Feature:

- Clear lens
- Package in bulk pack
- 5mm round lamp
- AllnGaP technology for R/Y/O/AG
- InGaN technology for IG/IB
- Viewing angle: 30° typ.

### Description:

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

### Application:

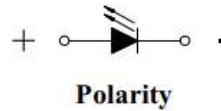
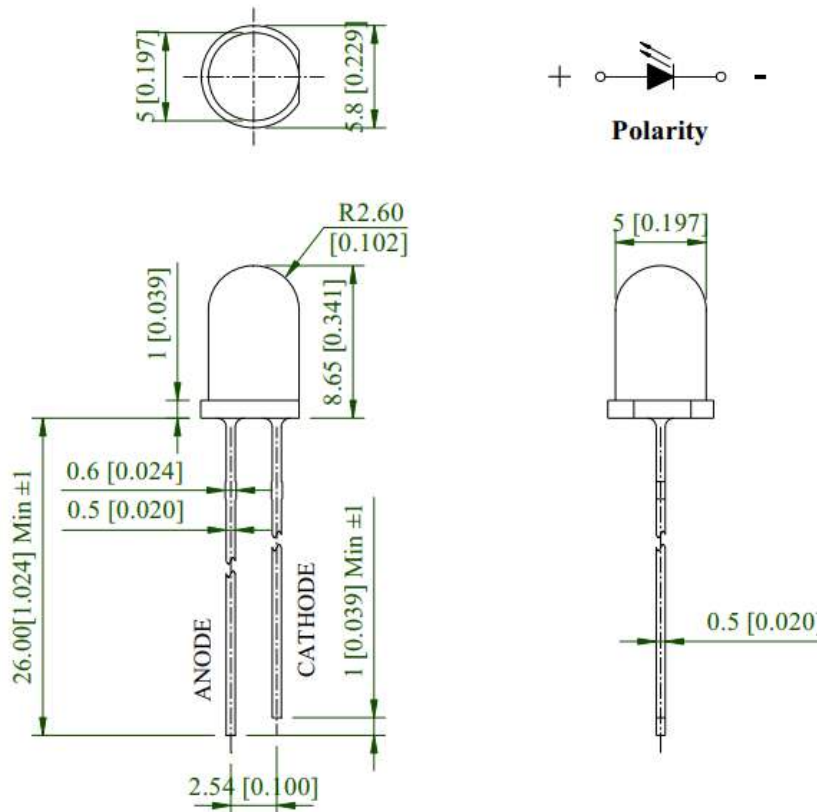
- General purpose indicator application
- Electronic signs and electronics board

### Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / 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.
QBL8R30C	Red	20	2.0	2.6	624	780	1300
QBL8O30C	Orange	20	2.0	2.6	605	1300	2200
QBL8Y30C	Yellow	20	2.0	2.6	590	600	1000
QBL8AG30C	Yellow Green	20	2.0	2.6	573	270	460
QBL8IG30C	True Green	20	3.2	3.6	525	14000	23000
QBL8IB30C	Blue	20	3.2	3.6	470	2900	5000

**Absolute Maximum Rating**

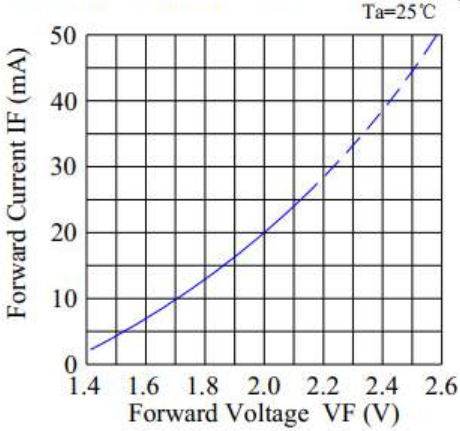
Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)
AlInGaP	65	25	100	5	-40 ~ +85	-40 ~ +100
InGaN	95	25	100	5	-40 ~ +85	-40 ~ +100

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

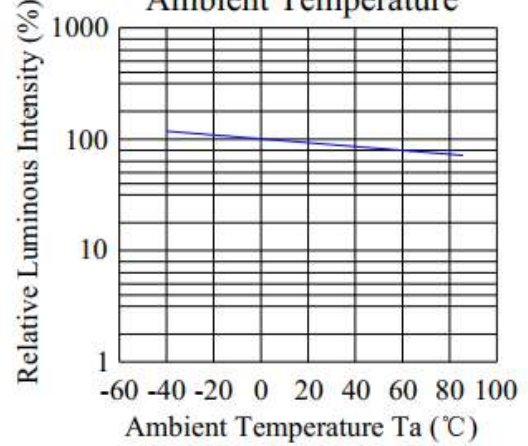
## Characteristic Curves

AllInGaP

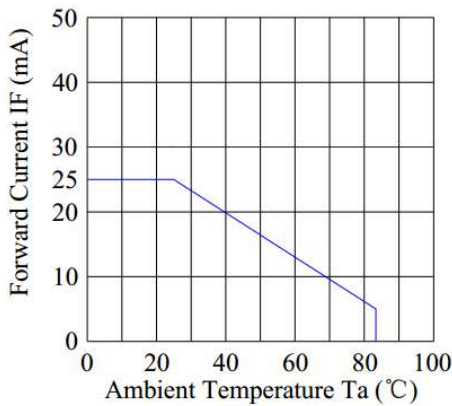
Forward Current & Forward Voltage



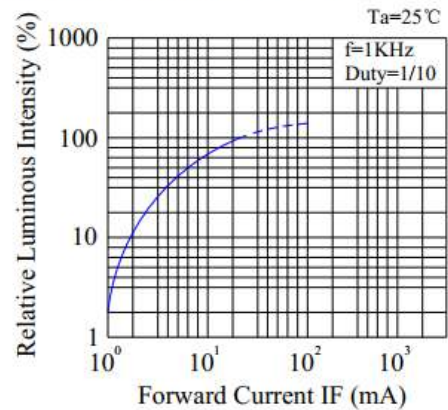
Luminous Intensity & Ambient Temperature



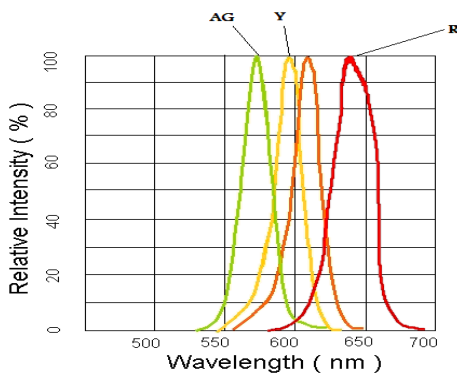
Forward Current Derating Curve



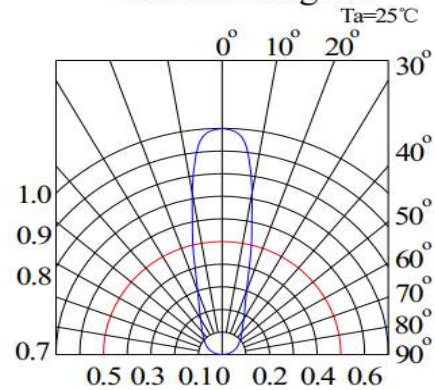
Luminous Intensity & Forward Current



Relative Intensity vs. Wavelength

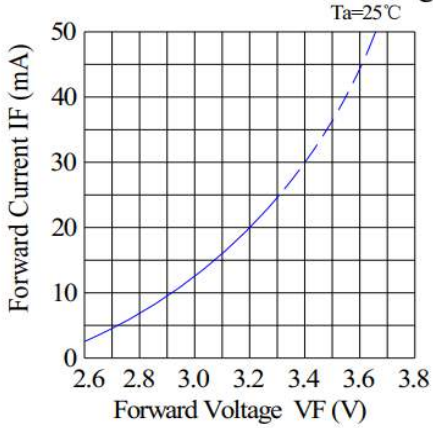


Radiation Diagram

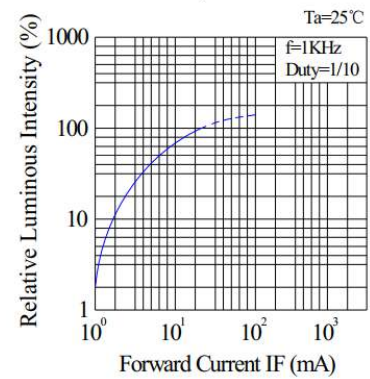


InGaN

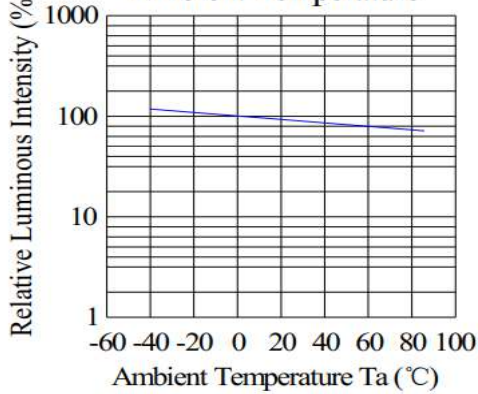
Forward Current & Forward Voltage



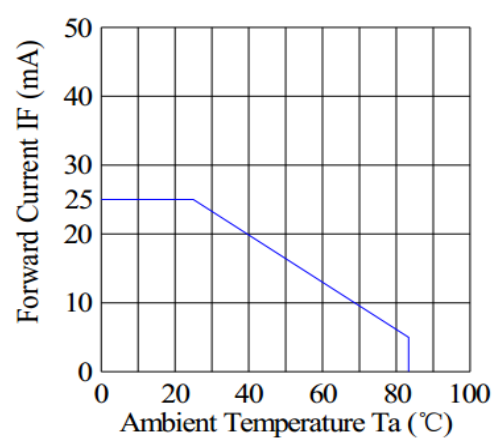
Luminous Intensity & Forward Current



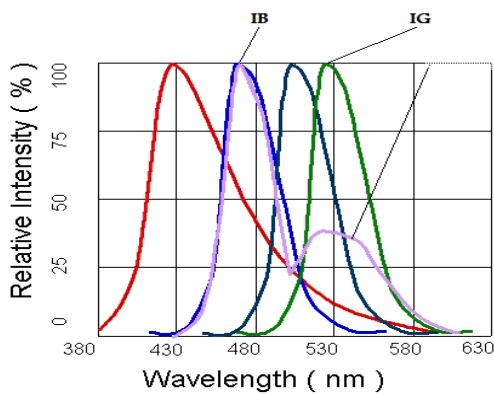
Luminous Intensity & Ambient Temperature



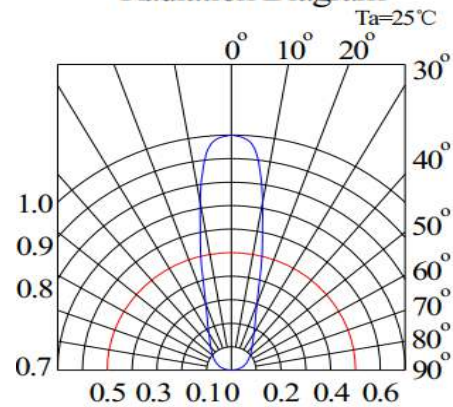
Forward Current Derating Curve



Relative Intensity vs. Wavelength



Radiation Diagram





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**Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per bag
QBL8R30C	QBL8R30C	Iv=1300mcd typ. @ 20mA, $\lambda_D$ =624nm typ.	500pcs
QBL8O30C	QBL8O30C	Iv=2200mcd typ. @ 20mA, $\lambda_D$ =605nm typ.	500pcs
QBL8Y30C	QBL8Y30C	Iv=1000mcd typ. @ 20mA, $\lambda_D$ =590nm typ.	500pcs
QBL8AG30C	QBL8AG30C	Iv=460mcd typ. @ 20mA, $\lambda_D$ =573nm typ.	500pcs
QBL8IG30C	QBL8IG30C	Iv=23000mcd typ. @ 20mA, $\lambda_D$ =525nm typ.	500pcs
QBL8IB30C	QBL8IB30C	Iv=5000mcd typ. @ 20mA, $\lambda_D$ =470nm typ.	500pcs

## Revision History

Description:	Revision #	Revision Date
New Release of QBL8XX30C_series	V1.0	06/25/2011
Update format	V1.1	09/19/2012
Update spec, dimension drawing and binning	V2.0	12/04/2015
Update spec and format	V3.0	01/22/2018

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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.