

# **QT-Brightek Lamp Series**

## **3mm Round Lamp**

**Part No.: QBL7XX30C**

**XX: Color Code**

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## Introduction

**Feature:**

- Water clear lens
- Packed in bulk
- 3mm round lamp
- AlInGaP technology for R/O/Y/AG
- InGaN technology for IG/IB
- Viewing angle: 30° typ.

**Description:**

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

**Application:**

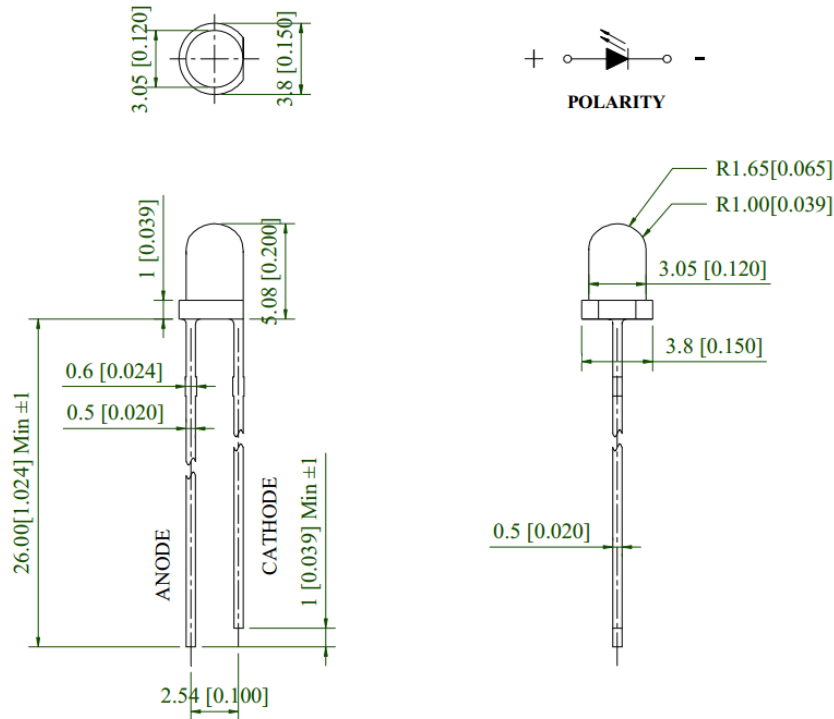
- General purpose indicator application
- Electronic signs and electronics board
- LED lighting

**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 <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>D</sub> (nm)	I <sub>V</sub> (mcd)	
			Typ.	Max.	Typ.	Min.	Typ.
QBL7R30C	Red	20	2.0	2.6	624	460	780
QBL7O30C	Orange	20	2.0	2.6	605	600	1000
QBL7Y30C	Yellow	20	2.0	2.6	590	270	460
QBL7AG30C	Yellow Green	20	2.0	2.6	573	160	270
QBL7IG30C	True Green	20	3.2	3.6	525	11000	18000
QBL7IB30C	Blue	20	3.2	3.6	470	2200	3800

**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

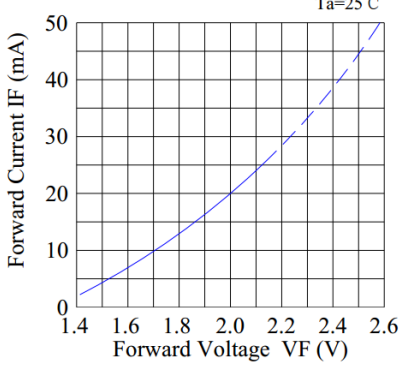
\*1/10 Duty Cycle, 0.1ms Pulse Width

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

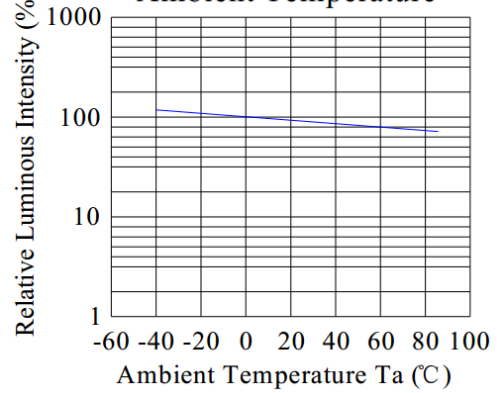
## Characteristic Curves

AllnGaP (R/AG/O/Y)

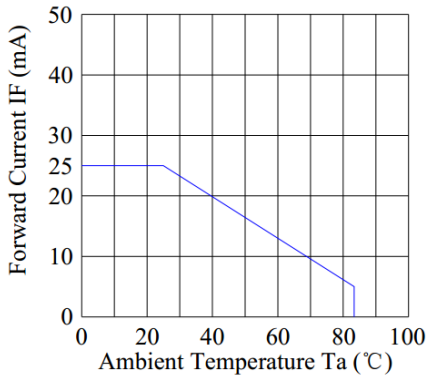
Forward Current & Forward Voltage



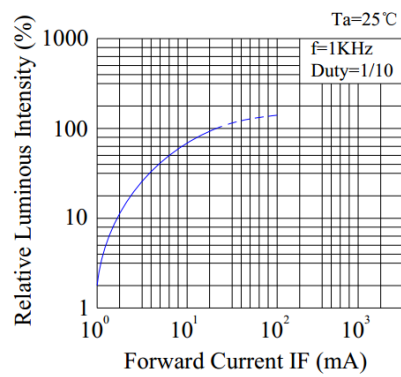
Luminous Intensity & Ambient Temperature



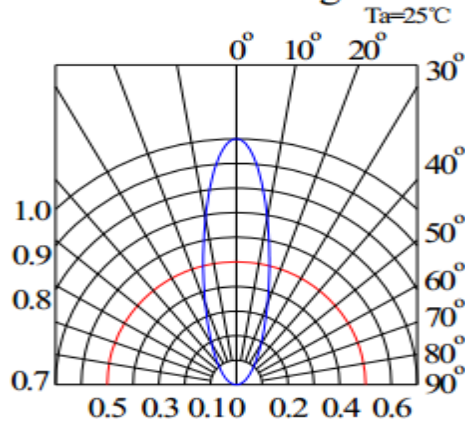
Forward Current Derating Curve



Luminous Intensity & Forward Current

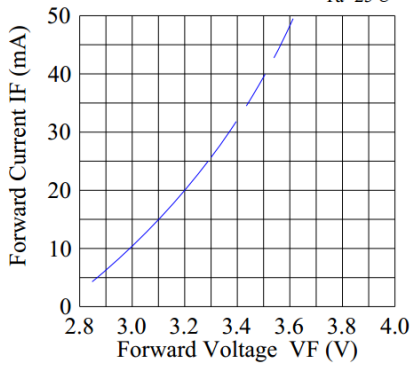


Radiation Diagram

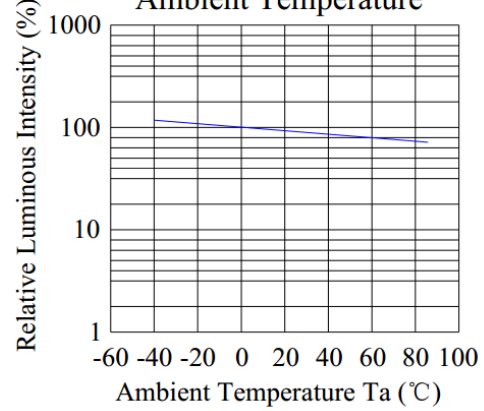


**InGaN (IG/IB)**

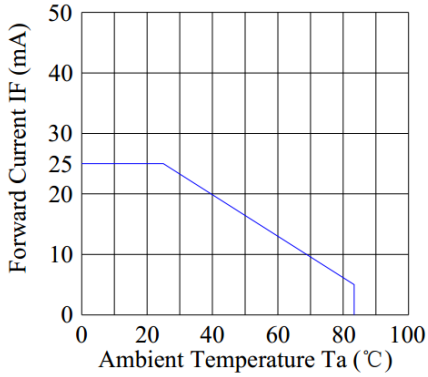
**Forward Current & Forward Voltage**  
Ta=25°C



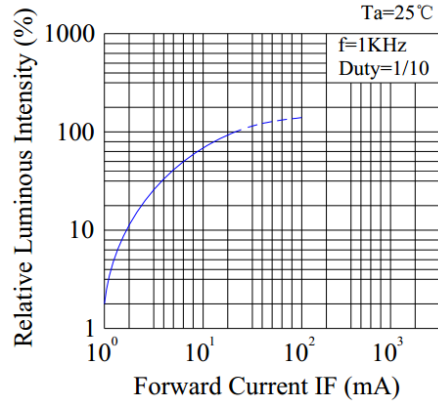
**Luminous Intensity & Ambient Temperature**



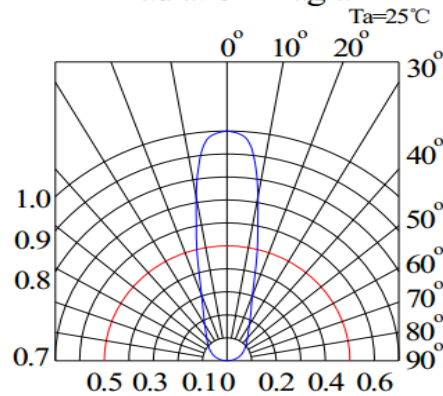
**Forward Current Derating Curve**



**Luminous Intensity & Forward Current**  
Ta=25°C



**Radiation Diagram**  
Ta=25°C



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**Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per bag
QBL7R30C	QBL7R30C	Iv=780mcd typ. @ 20mA, $\lambda_D=624\text{nm}$ typ.	500pcs
QBL7O30C	QBL7O30C	Iv=1000mcd typ. @ 20mA, $\lambda_D=605\text{nm}$ typ.	500pcs
QBL7Y30C	QBL7Y30C	Iv=460mcd typ. @ 20mA, $\lambda_D=590\text{nm}$ typ.	500pcs
QBL7AG30C	QBL7AG30C	Iv=270mcd typ. @ 20mA, $\lambda_D=573\text{nm}$ typ.	500pcs
QBL7IG30C	QBL7IG30C	Iv=18000mcd typ. @ 20mA, $\lambda_D=525\text{nm}$ typ.	500pcs
QBL7IB30C	QBL7IB30C	Iv=3800mcd typ. @ 20mA, $\lambda_D=470\text{nm}$ typ.	500pcs

## Revision History

Description:	Revision #	Revision Date
New Release of QBL7XX30C Series	V1.0	09/20/2010
Brightness/color updates	V1.1	06/25/2011
Add CCT Chart/Table	V1.2	10/19/2011
Update format and spec	V1.3	05/09/2012
QBL7IW30C brightness/CCT	V1.4	06/04/2012
Amend Dimension	V1.5	08/02/2012
Added Red and Yellow/Amend Dimension	V1.6	08/13/2012
Update spec and dimension drawing	V2.0	11/22/2017

## 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.