

**QT-Brightek Lamp Series**

**3mm Flat Top Cylindrical Lamp**

**Part No.: QBFL7XX120CL Series**

**L: Low Profile (Lens Height: 3.85mm)**

**Table of Contents:**

Introduction .....3

Electrical / Optical Characteristic (Ta=25 °C) .....4

Absolute Maximum Rating .....4

Characteristic Curves.....5

Ordering Information .....6

Revision History .....7

Disclaimer .....7

## Introduction

### Feature:

- Water clear lens
- Package in bulk pack
- 3mm flat top cylindrical lamp
- AlInGaP technology
- Viewing Angle: 120° typ.
- Height profile: 3.85mm

### Application:

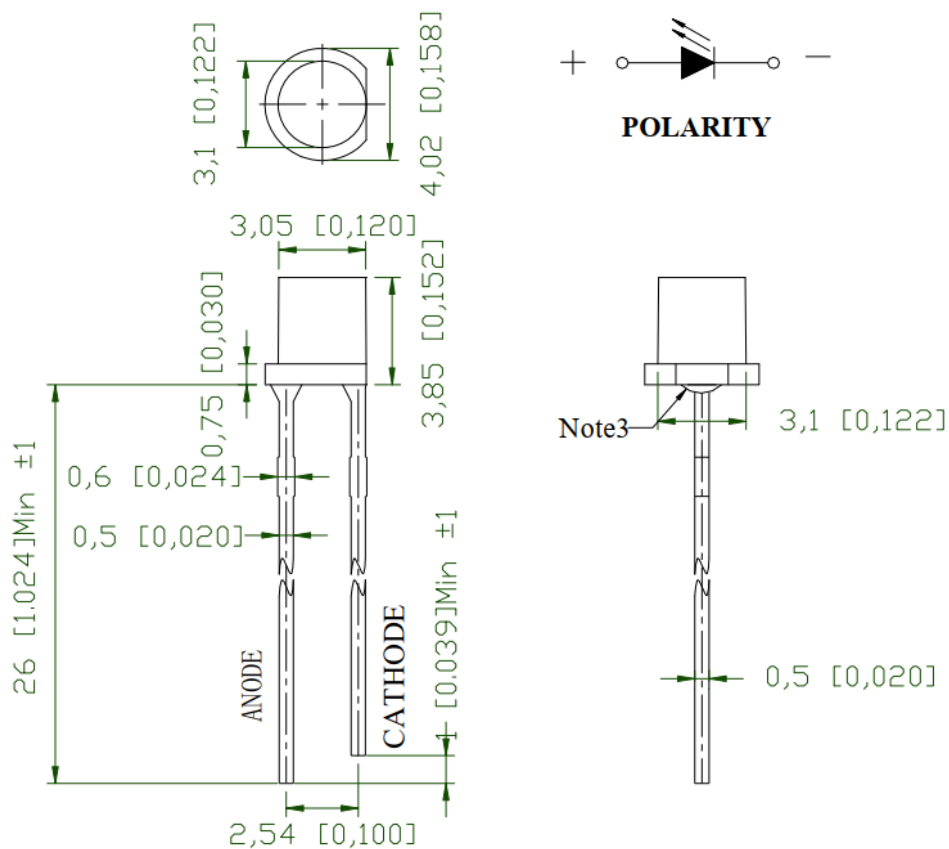
- General purpose indicator application
- Electronic signs and electronics board
- Circuit board

### Certification & Compliance:

- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / tolerance = +/-0.25mm unless otherwise noted

## 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.
QBFL7R120CL	Red	20	2.0	2.6	624	90	160
QBFL7O120CL	Orange	20	2.0	2.6	605	45	90

## Absolute Maximum Rating

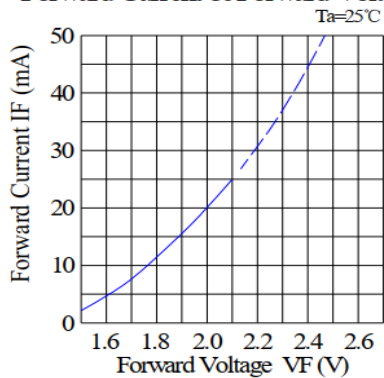
Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>sol</sub> (°C)**
AlInGaP	65	25	100	5	-40 to + 85	-40 to +100	260

\*Duty 1/10, 0.1ms pulse width

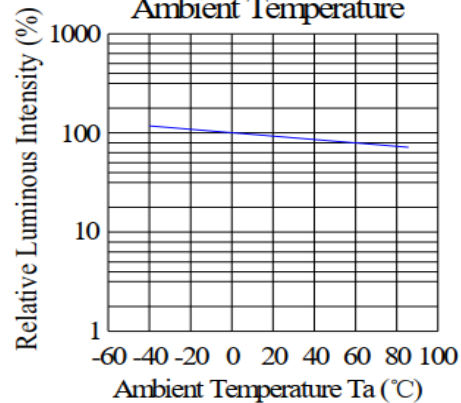
\*\*Wave Soldering for no more than 5 sec @ 260 °C

## Characteristic Curves

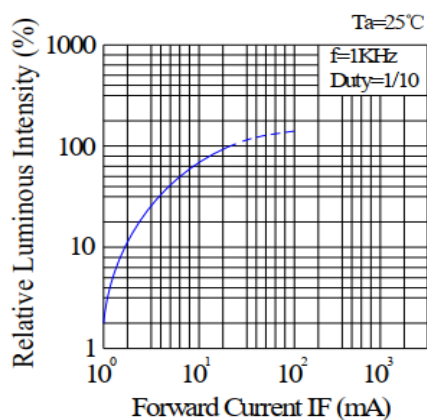
Forward Current & Forward Voltage



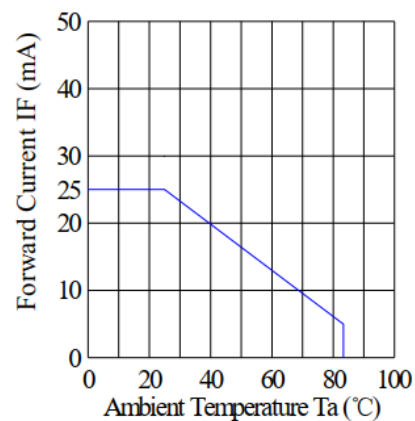
Luminous Intensity & Ambient Temperature



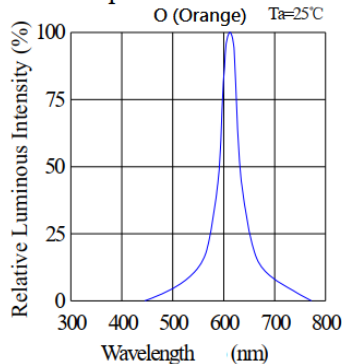
Luminous Intensity & Forward Current



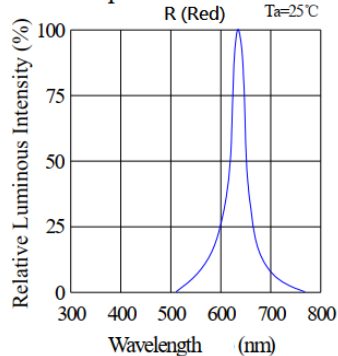
Forward Current Derating Curve



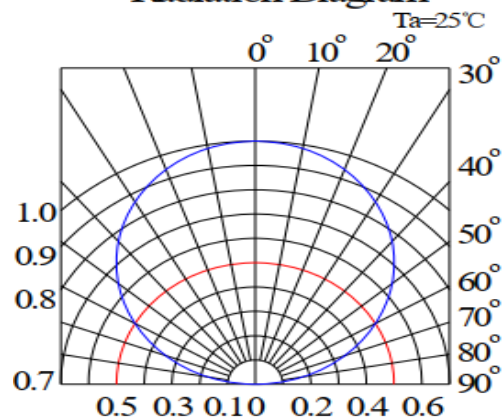
Spectrum Distribution



Spectrum Distribution



Radiation Diagram



---

## Ordering Information

Orderable Part #	Spec Range	Quantity per bag
QBFL7R120CL	Iv=160mcd typ. @ 20mA, $\lambda_d$ =624nm typ.	1000pcs
QBFL7O120CL	Iv=90mcd typ. @ 20mA, $\lambda_d$ =605nm typ.	



## Revision History

Description:	Revision #	Revision Date
New Release of QBFL7XX120CL Series	V1.0	10/03/2018

## Disclaimer

QT-BRIGHTTEK reserves the right to make changes without further notice to any products herein to improve reliability, function or design. QT-BRIGHTTEK does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others.

## Life Support Policy

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.