

**QT-Brightek Lamp Series**  
**3mm Flat Top Cylindrical Lamp**  
**Part No.: QBFL7XX130D Series**



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**Table of Contents:**

Introduction .....3  
Electrical / Optical Characteristic (Ta=25 °C) .....4  
Absolute Maximum Rating .....4  
Characteristic Curves.....5  
Labeling .....7  
Ordering Information .....7  
Revision History .....8  
Disclaimer .....8

## Introduction

### Feature:

- Color diffused lens
- Package in bulk pack
- 3mm flat top cylindrical lamp
- AlInGaP technology for R, O, Y, AG
- InGaN technology for IB
- Viewing Angle: 130° typ.

### Description:

These 3mm flat top round lamps with 6.1mm lens height are suitable for all indicator applications.

### Application:

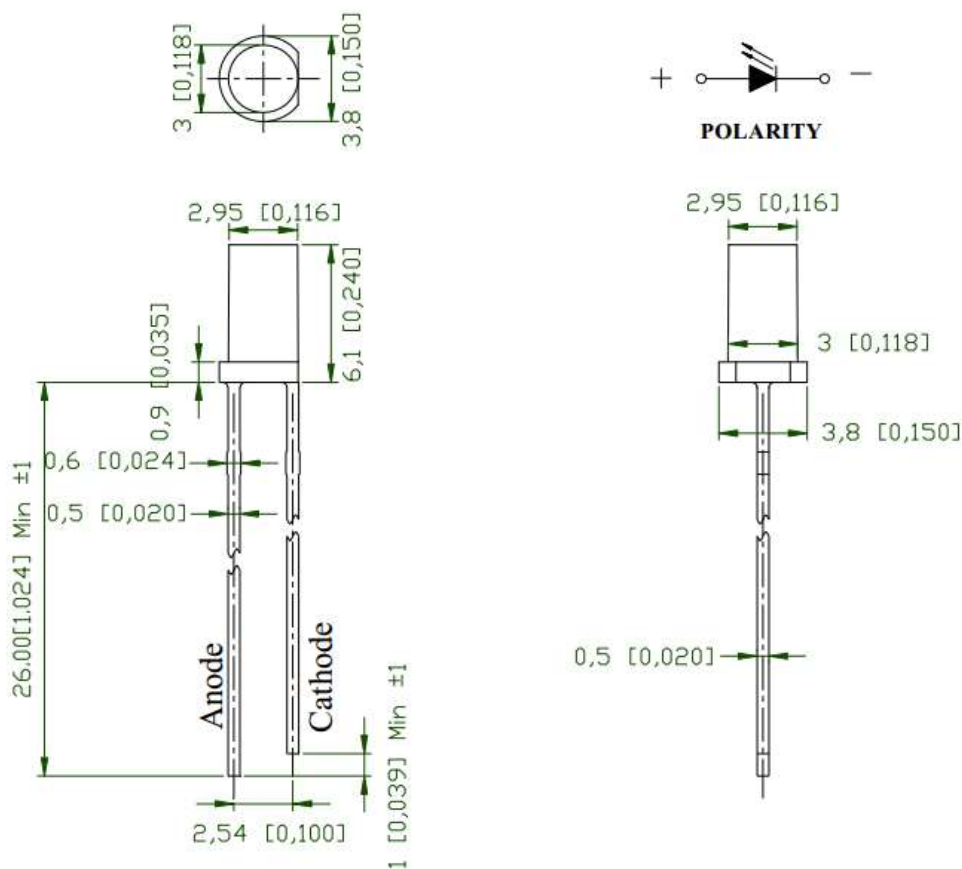
- General purpose indicator application
- Electronic signs and electronics board
- Circuit board

### Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



### Dimension:



POLARITY

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. |
| QBFL7R130D  | Red          | 20                  | 2.0                | 2.6  | 624                 | 45                   | 90   |
| QBFL7O130D  | Orange       | 20                  | 2.0                | 2.6  | 605                 | 70                   | 120  |
| QBFL7Y130D  | Yellow       | 20                  | 2.0                | 2.6  | 590                 | 13                   | 30   |
| QBFL7AG130D | Yellow Green | 20                  | 2.0                | 2.6  | 573                 | 13                   | 30   |
| QBFL7IB130D | Blue         | 20                  | 3.2                | 3.6  | 470                 | 160                  | 270  |

**Absolute Maximum Rating**

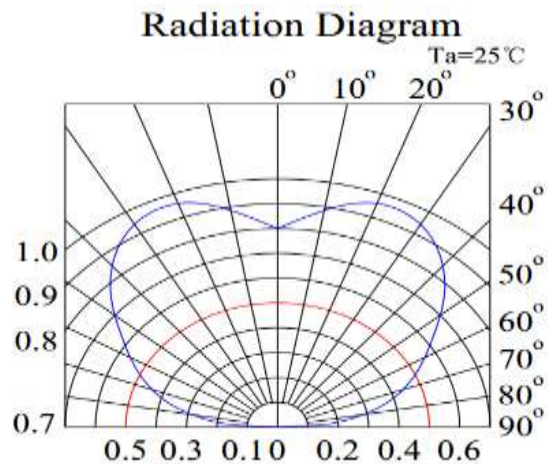
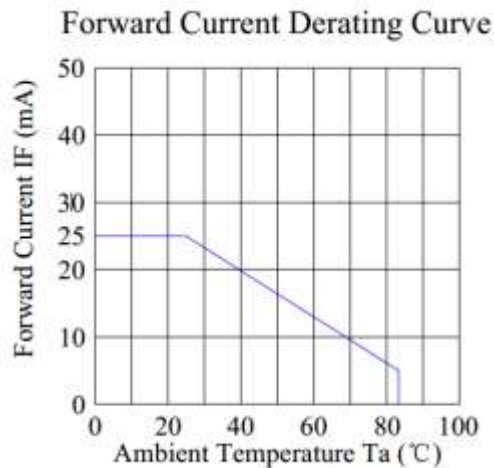
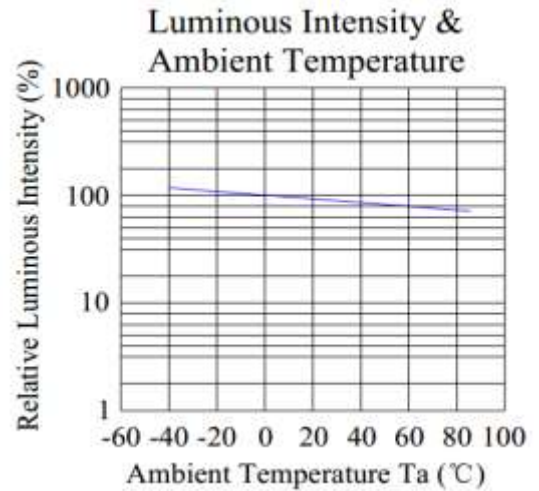
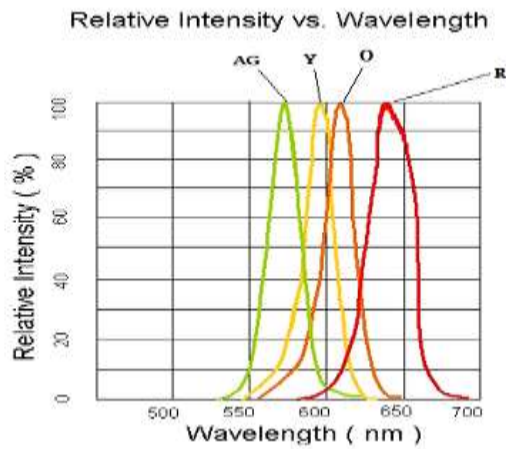
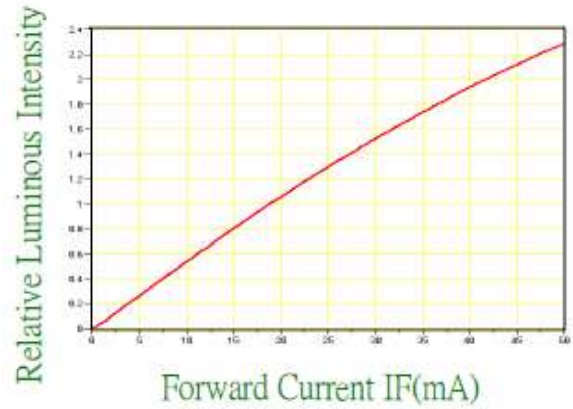
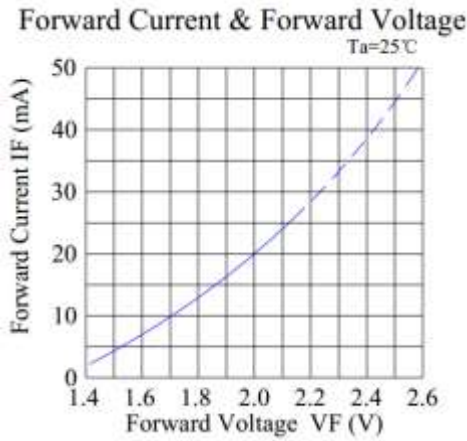
| Material | P <sub>d</sub> (mW) | I <sub>F</sub> (mA) | I <sub>FP</sub> (mA)* | V <sub>R</sub> (V) | T <sub>OP</sub> (°C) | T <sub>ST</sub> (°C) | T <sub>sol</sub> (°C)** |
|----------|---------------------|---------------------|-----------------------|--------------------|----------------------|----------------------|-------------------------|
| AllnGaP  | 65                  | 25                  | 100                   | 5                  | -40 to + 85          | -40 to +100          | 260                     |
| InGaN    | 95                  | 25                  | 100                   | 5                  | -40 to + 85          | -40 to +100          | 260                     |

\*Duty 1/10, 0.1ms pulse width

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

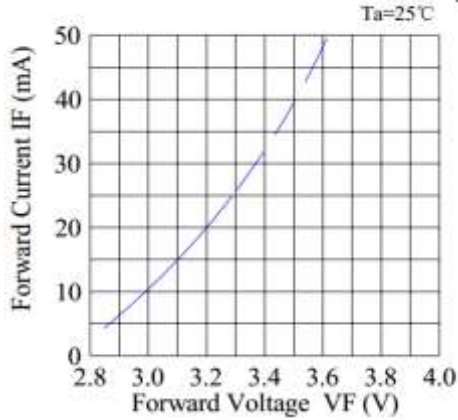
## Characteristic Curves

AllnGaP

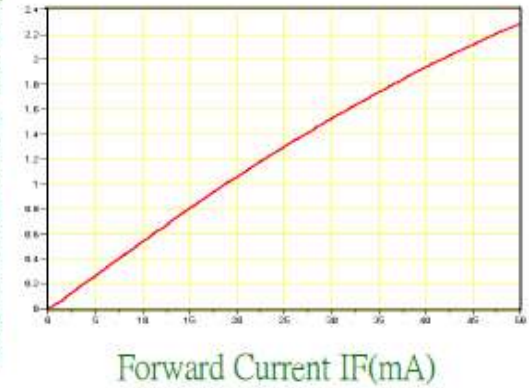


InGaN (IB)

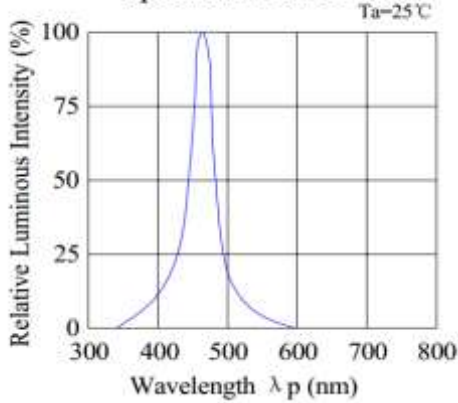
Forward Current & Forward Voltage



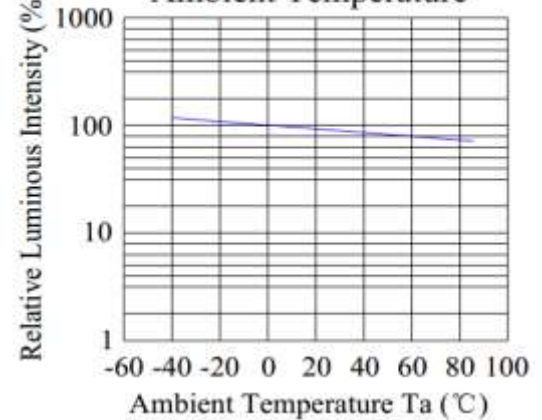
Relative Luminous Intensity



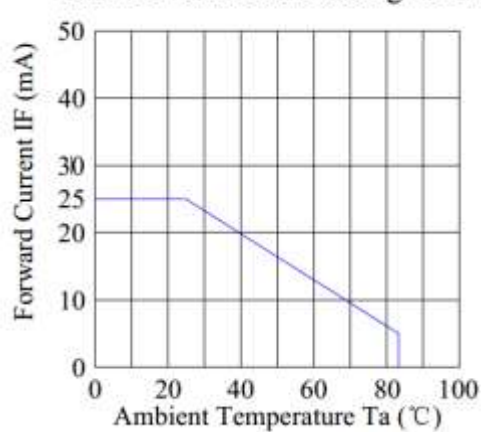
Spectrum Distribution



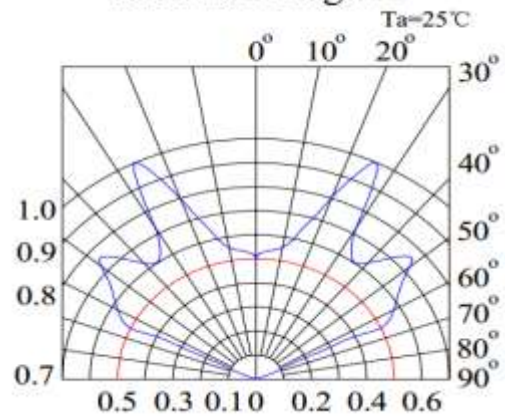
Luminous Intensity & Ambient Temperature



Forward Current Derating Curve



Radiation Diagram



**Labeling**

Part No: \_\_\_\_\_

Customer P/N: \_\_\_\_\_

Item: \_\_\_\_\_

Q'ty: \_\_\_\_\_

LOT NO: \_\_\_\_\_

Date: \_\_\_\_\_

**Made in China****Ordering Information**

| Part #      | Orderable Part # | Spec Range   | Quantity per bag |
|-------------|------------------|--|------------------|
| QBFL7R130D  | QBFL7R130D       | lv=90mcd typ. @ 20mA, $\lambda_d=624\text{nm}$ typ.  | 500pcs           |
| QBFL7O130D  | QBFL7O130D       | lv=120mcd typ. @ 20mA, $\lambda_d=605\text{nm}$ typ. |                  |
| QBFL7Y130D  | QBFL7Y130D       | lv=30mcd typ. @ 20mA, $\lambda_d=590\text{nm}$ typ.  |                  |
| QBFL7AG130D | QBFL7AG130D      | lv=30mcd typ. @ 20mA, $\lambda_d=573\text{nm}$ typ.  |                  |
| QBFL7IB130D | QBFL7IB130D      | lv=270mcd typ. @ 20mA, $\lambda_d=470\text{nm}$ typ. |                  |



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## Revision History

| Description:                      | Revision # | Revision Date |
|-----------------------------------|------------|---------------|
| New Release of QBFL7XX130D Series | V1.0       | 02/23/2017    |
|                                   |            |               |
|                                   |            |               |
|                                   |            |               |
|                                   |            |               |

## Disclaimer

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## 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.

|                      |                         |             |
|----------------------|-------------------------|-------------|
| Product: QBFL7XX130D | Date: February 23, 2017 | Page 8 of 8 |
|                      | Version# 1.0            |             |