

# **QT-Brightek Chip LED Series**

## **SMD 1205 LED**

**Part No.: QBLP655R-IBA-S2897**

**655R: Reverse Mount**

**A: 10mA**

**S2897: Ultra High Bright**

Table of Contents:

Introduction .....

3

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

4

Absolute Maximum Rating .....

4

Characteristic Curves.....

5

Solder Profile & Footprint.....

6

Packing .....

7

Labeling .....

8

Ordering Information .....

8

Revision History .....

9

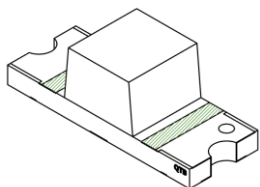
Disclaimer .....

9

## Introduction

### Feature:

- Clear lens
- Package in tape and reel
- Ultra bright blue
- Viewing angle: 140 degrees typ.
- Reverse mount
- Height profile: 1.1mm



### Application:

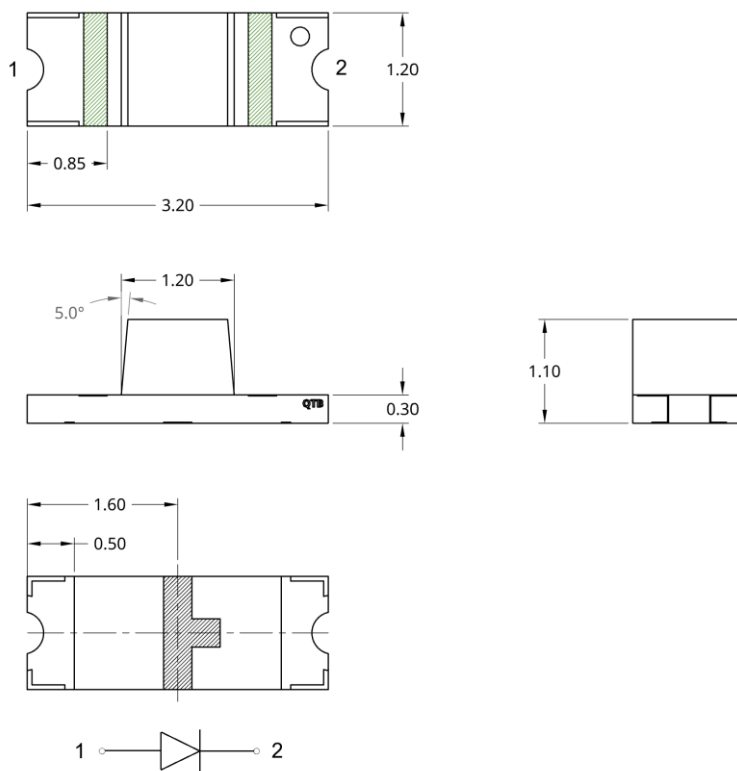
- Status indication
- Back lighting application

### Certification & Compliance:

- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / tolerance = +/-0.1mm

## Electrical / Optical Characteristic (Ta=25 °C)

| Product            | Color | I <sub>F</sub> (mA) | V <sub>F</sub> (V) |      | λ <sub>D</sub> (nm) |      |      | λ <sub>p</sub> (nm) | I <sub>v</sub> (mcd) |      |
|--------------------|-------|---------------------|--------------------|------|---------------------|------|------|---------------------|----------------------|------|
|                    |       |                     | Typ.               | Max. | Min.                | Typ. | Max. | Typ.                | Min.                 | Typ. |
| QBLP655R-IBA-S2897 | Blue  | 10                  | 2.8                | 3.1  | 465                 | 472  | 475  | 470                 | 59                   | 104  |

## Absolute Maximum Rating

| Chip 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)** |
|---------------|---------------------|---------------------|-----------------------|--------------------|----------------------|----------------------|-------------------------|
| InGaN         | 93                  | 30                  | 100                   | 5                  | -40 ~ +80            | -40 ~ +85            | 260                     |

\*Duty 1/10 @ 1kHz

\*\*IR Reflow for no more than 10 sec @ 260 °C

## Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=10mA

| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| e   | 2.5  | 2.8  | V    |
| f   | 2.8  | 3.1  |      |

## Luminous Intensity I<sub>v</sub> @ I<sub>F</sub>=10mA

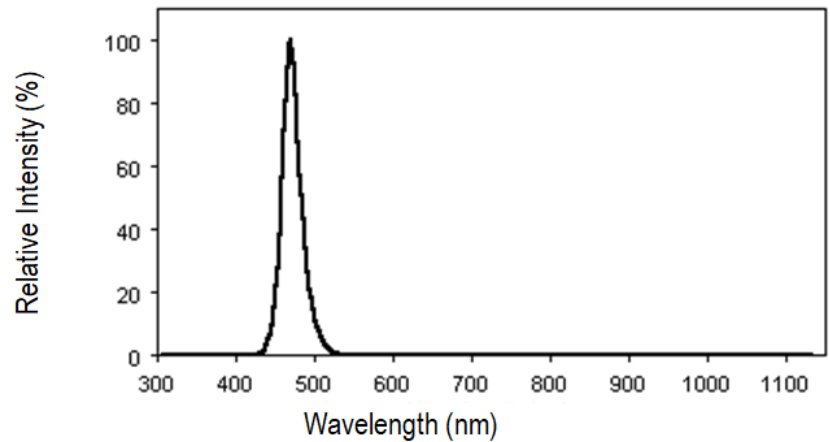
| Bin | Min.  | Max.  | Unit |
|-----|-------|-------|------|
| G   | 59    | 74.3  | mcd  |
| H   | 74.3  | 94.4  |      |
| I   | 94.4  | 118   |      |
| J   | 118   | 147.5 |      |
| K   | 147.5 | 189   |      |

## Dominant Wavelength λ<sub>D</sub> @ I<sub>F</sub>=10mA

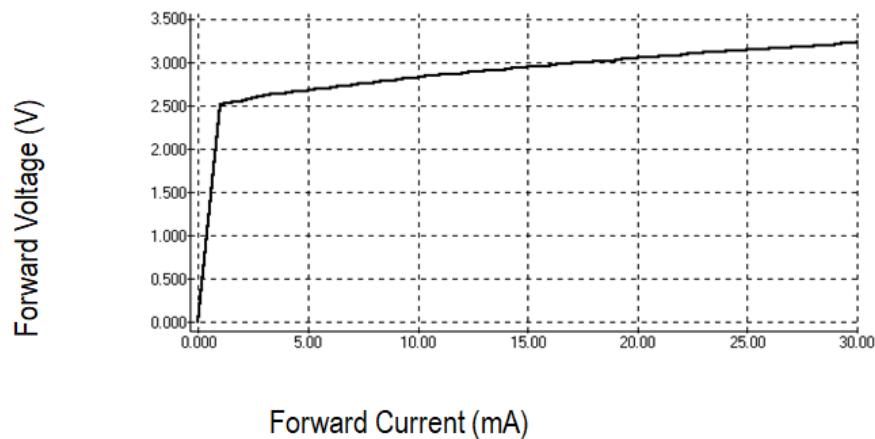
| Bin | Min.  | Max.  | Unit |
|-----|-------|-------|------|
| G   | 465   | 467.5 | nm   |
| H   | 467.5 | 470   |      |
| I   | 470   | 472.5 |      |
| J   | 472.5 | 475   |      |

**Characteristic Curves**

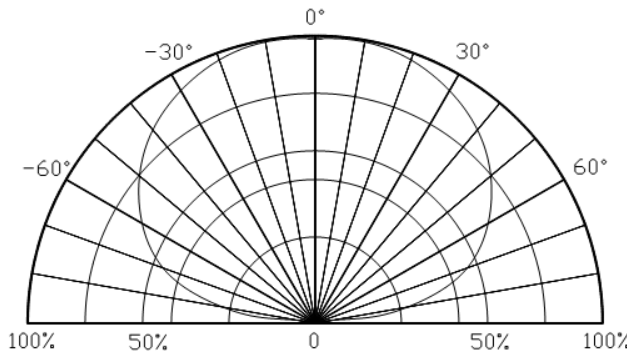
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage

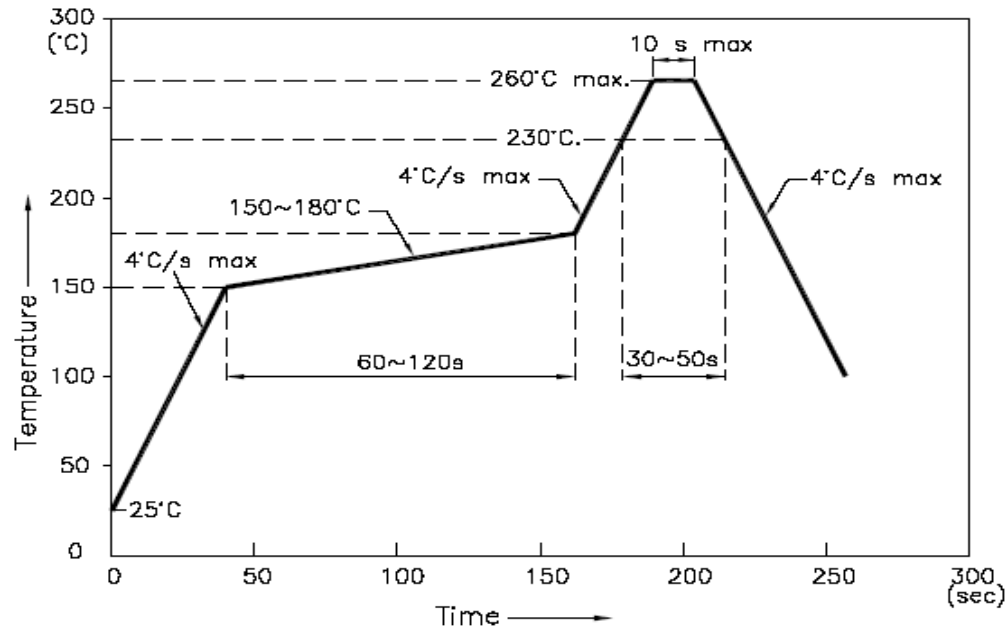


Directive Characteristics

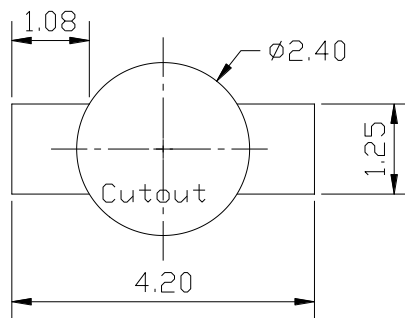


## Solder Profile & Footprint

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



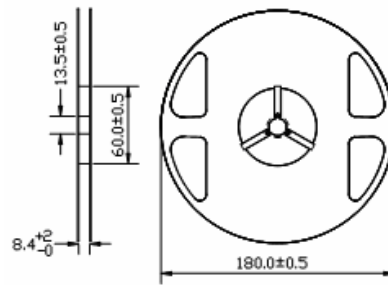
### Recommended Pad Layout



Units: mm

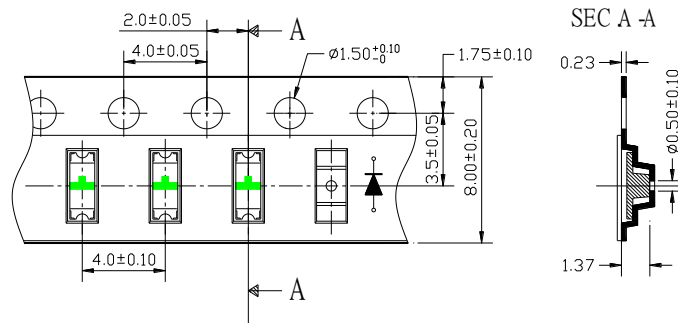
## Packing

### Reel Dimension:



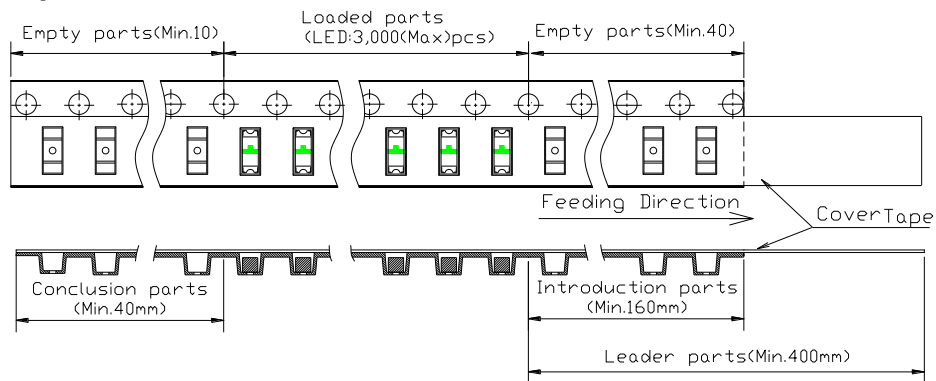
Unit: mm

### Tape Dimension:

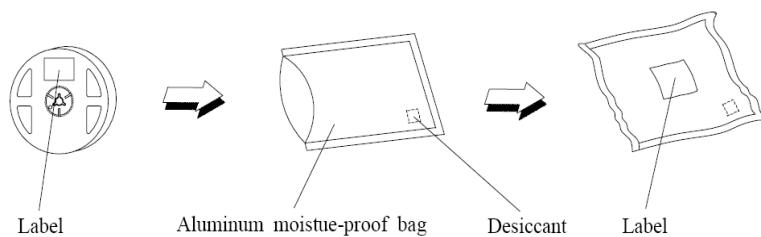


Unit: mm

### Arrangement of Tape:



### Packaging Specifications:



|                             |                        |             |
|-----------------------------|------------------------|-------------|
| Product: QBLP655R-IBA-S2897 | Date: January 30, 2026 | Page 7 of 9 |
|                             | Version# 1.0           |             |

Labeling



QT-Brightek





Part No:

Customer P/N:

Item:

Q'ty:

Vf:

Iv:

WI:

Date:

Made in China

Ordering Information

|                    |                                      |                   |
|--------------------|--------------------------------------|-------------------|
| Orderable Part #   | Spec Range                           | Quantity per reel |
| QBLP655R-IBA-S2897 | Iv=104mcd typ. @ 10mA / λD=465-475nm | 3,000 units       |



---

## Revision History

| Description:                      | Revision # | Revision Date |
|-----------------------------------|------------|---------------|
| New Release of QBLP655R-IBA-S2897 | V1.0       | 01/30/2026    |
|                                   |            |               |
|                                   |            |               |
|                                   |            |               |
|                                   |            |               |

## Disclaimer

QT-BRIGHTEK reserves the right to make changes without further notice to any products herein to improve reliability, function or design. QT-BRIGHTEK 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-BRIGHTEK's products are not authorized for use as critical components in life support devices or systems without the express written approval of QT-BRIGHTEK. 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.