

# **QT-Brightek Chip LED Series**

## **SMD 1206 Side View LED**

**Part No.: QBLP615-AG1**

|                      |                         |              |
|----------------------|-------------------------|--------------|
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|                      | Version# 1.0            |              |

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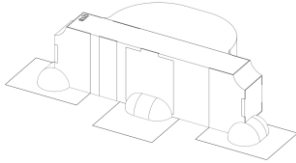
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## Introduction

### Feature:

- Water clear lens
- Package in tape and reel
- Side View (Right Angle) 1206 LED package
- AllnGaP technology
- Viewing angle 150° typ.



### Description:

These ultra bright side view 1206 LEDs have a height profile of 1.0mm. With higher packing density and smaller footprint, these LEDs are ideal for smaller equipment and miniature application.

### Application:

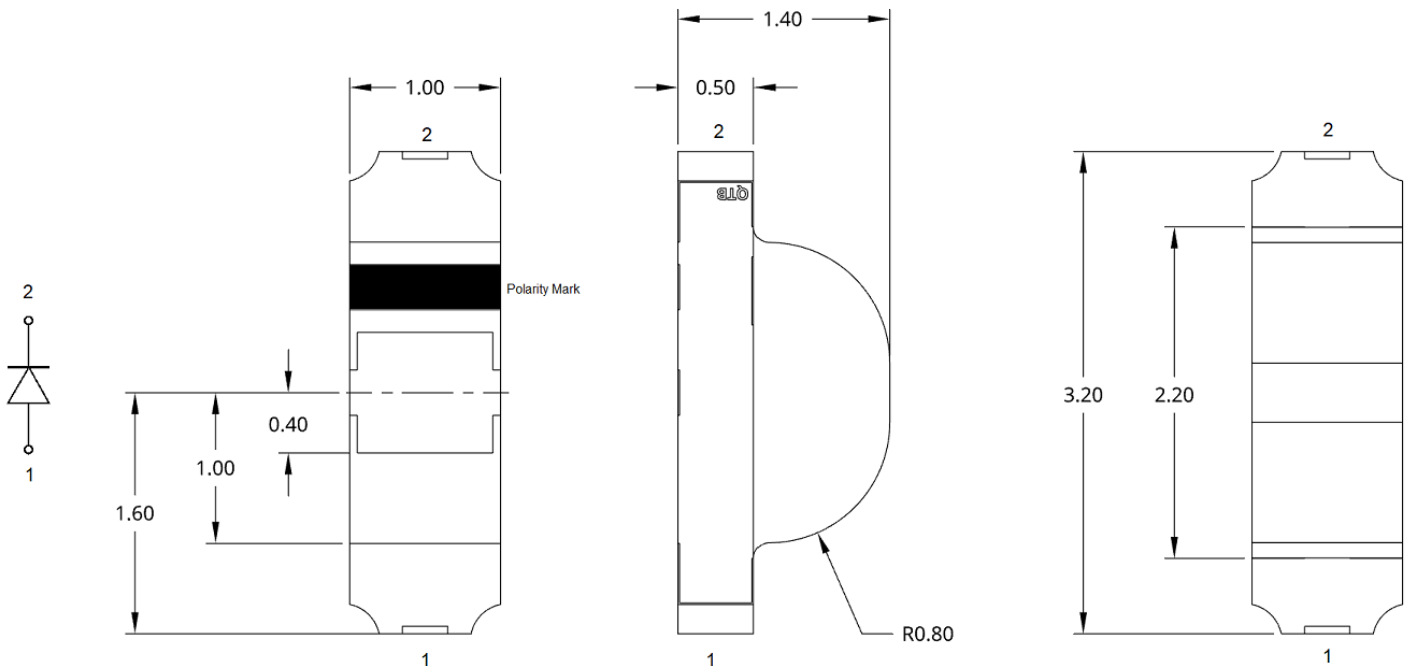
- Status indication
- Back lighting application
- General Use

### 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. |
| QBLP615-AG1 | Green | 20                  | 2.0                | 2.5  | 566                 | 571  | 575  | 572                 | 32                   | 60   |

**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  | 75                  | 30                  | 125                   | 5                  | -40 ~ +80            | -40 ~ +85            | 260                     |

\*Duty 1/8 @ 1kHz

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

**Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=20mA**

| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| □   | 1.7  | 2.5  | V    |

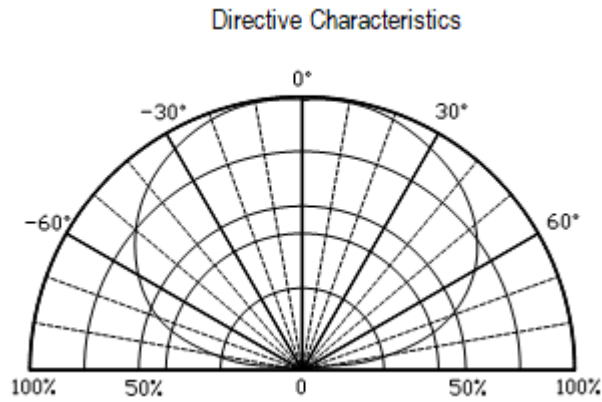
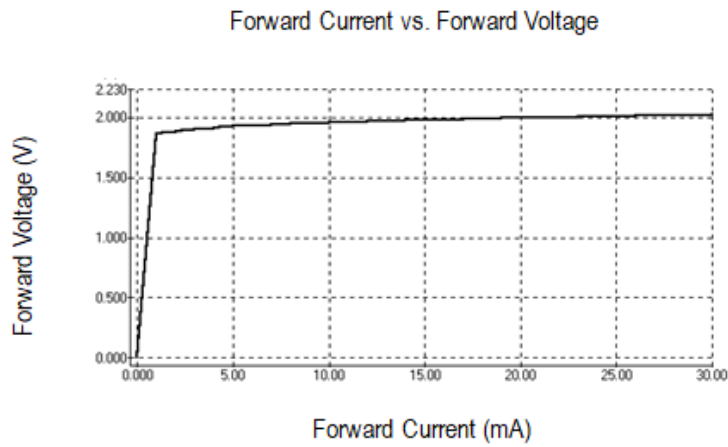
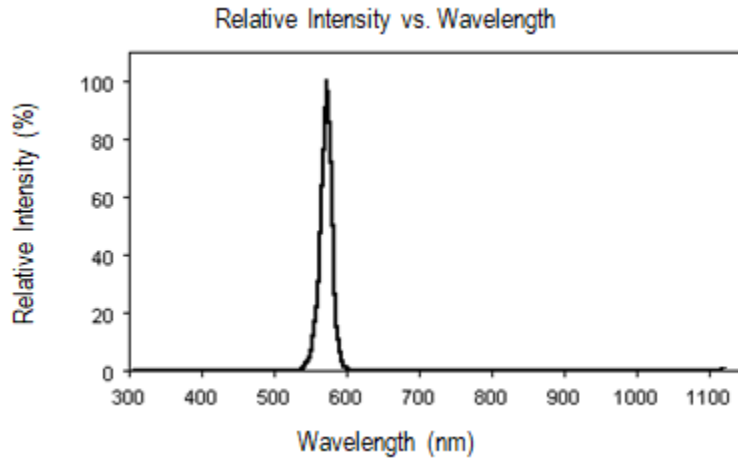
**Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=20mA**

| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| E   | 32   | 40   | mcd  |
| F   | 40   | 50   |      |
| G   | 50   | 63   |      |
| H   | 63   | 80   |      |
| I   | 80   | 100  |      |

**Dominant Wavelength λ<sub>D</sub> @ I<sub>F</sub>=20mA**

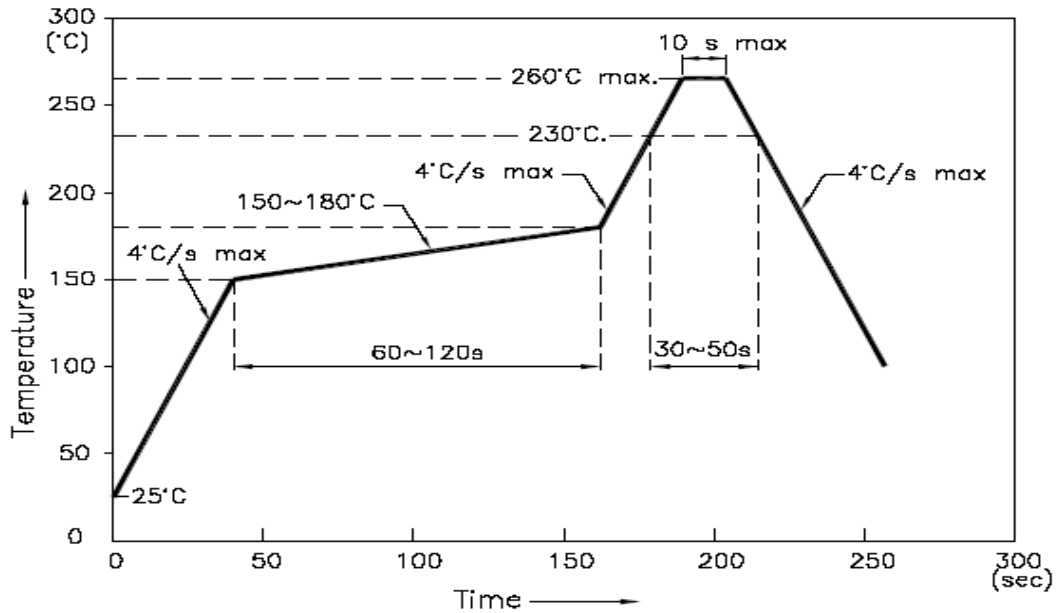
| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| H   | 566  | 569  | nm   |
| I   | 569  | 572  |      |
| J   | 572  | 575  |      |

**Characteristic Curves**

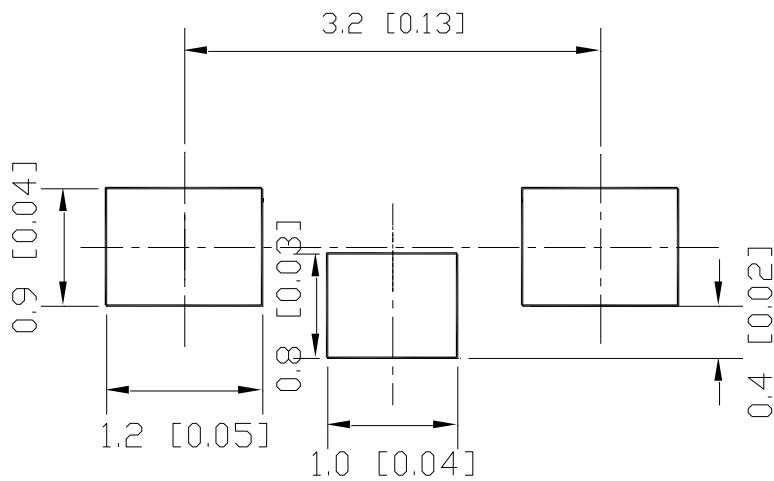


## Solder Profile & Footprint

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

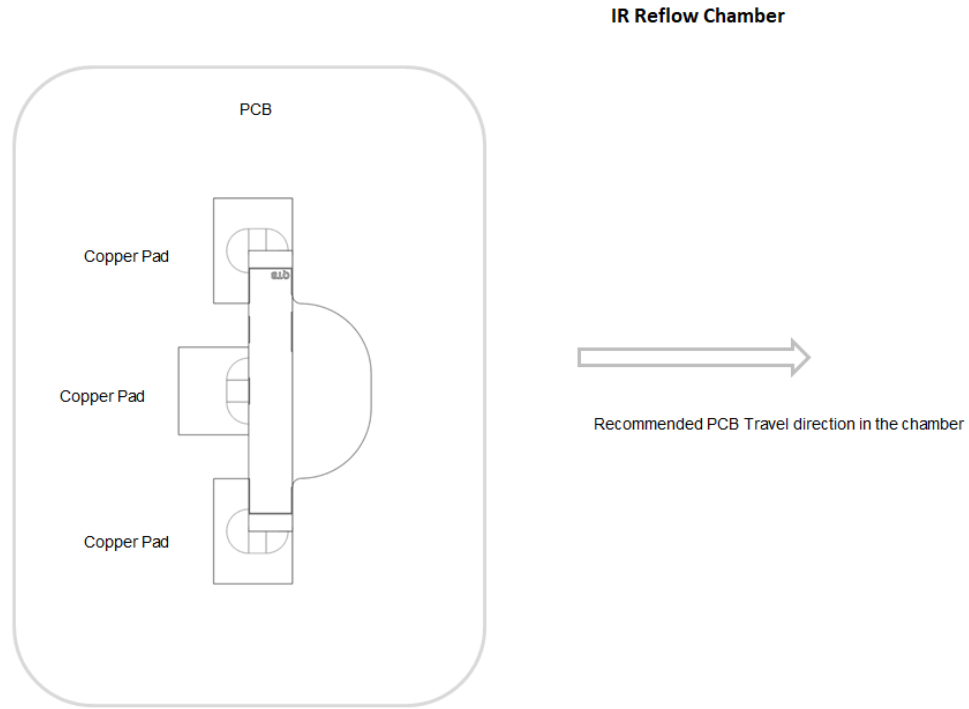


### Recommended Pad Layout

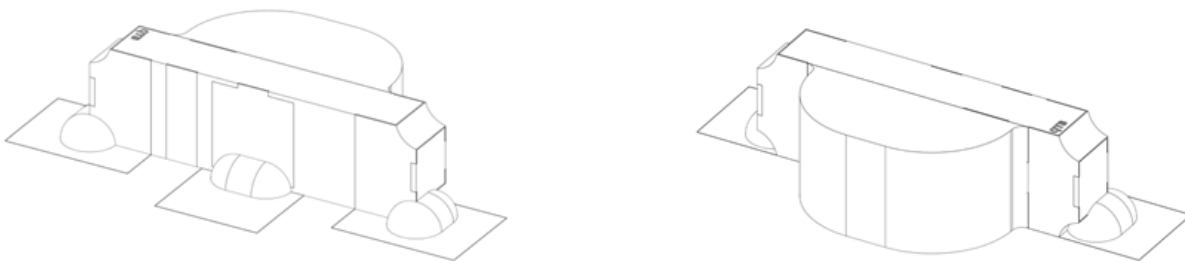


Units: mm

- The recommended IR reflow direction for a right angle (side view) SMD led is illustrated below to insure the solder on each lead melts simultaneously during the SMT reflow soldering process.



## Mounting the LED on PCB

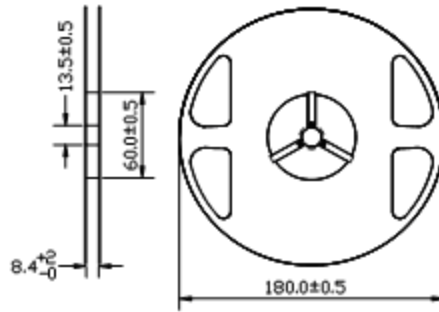


Note: The amount of solder paste applied as shown in the picture is just for illustration purpose only. When mounting and soldering the LEDs, avoid excess solder paste from overflowing onto or near the epoxy lens.

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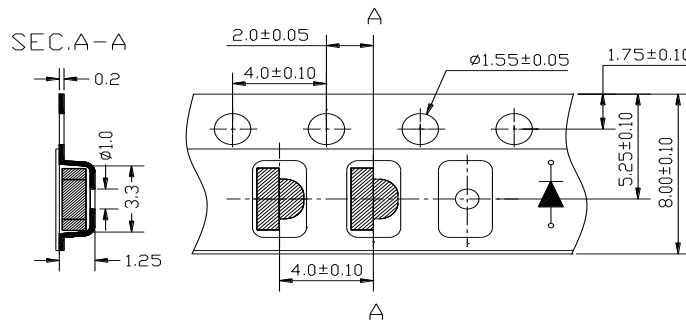
## Packing

### Reel Dimension:



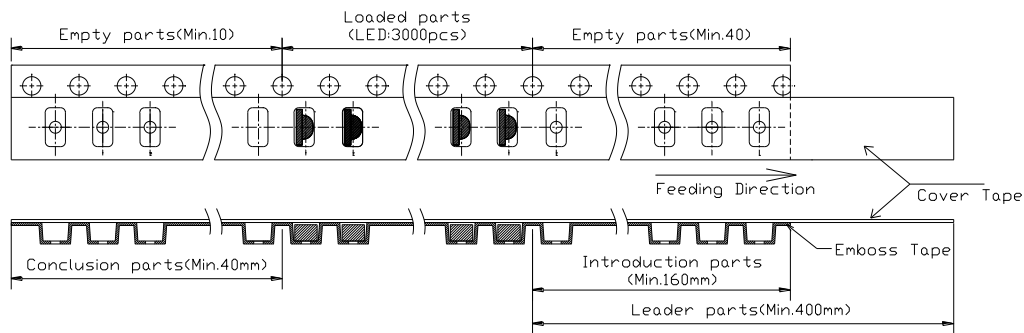
Unit: mm

### Tape Dimension:

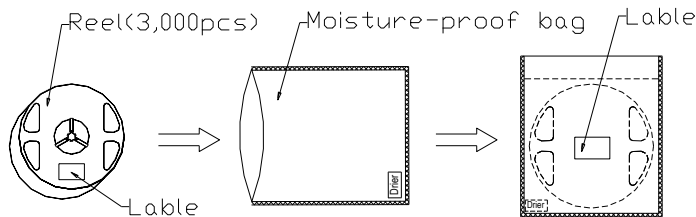


Unit: mm

### Arrangement of Tape:



### Packaging Specifications:



|                      |                         |              |
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**Labeling**



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

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

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

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

Vf: \_\_\_\_\_

Iv: \_\_\_\_\_

WI: \_\_\_\_\_

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

**Made in China**

**Ordering Information**

| Orderable Part # | Spec Range                                 | Quantity per reel |
|------------------|--|-------------------|
| QBLP615-AG1      | Iv=60mcd typ. @ 20mA / Color=566nm ~ 575nm | 3,000 units       |

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## Revision History

| Description:               | Revision # | Revision Date |
|----------------------------|------------|---------------|
| New Release of QBLP615-AG1 | V1.0       | 11/30/2023    |
|                            |            |               |
|                            |            |               |
|                            |            |               |
|                            |            |               |

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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.

|                      |                         |               |
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