# QT-Brightek Chip LED Series

# 0402 SMD Chip LED

## Part No.: QBLP595-IG-2897

### 2897: High Bright



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# Introduction

**Feature:**

- Water clear lens
- Package in tape and reel
- Compact 0402 package
- InGaN technology
- Viewing angle: 140° typ.
- Height profile: 0.5mm

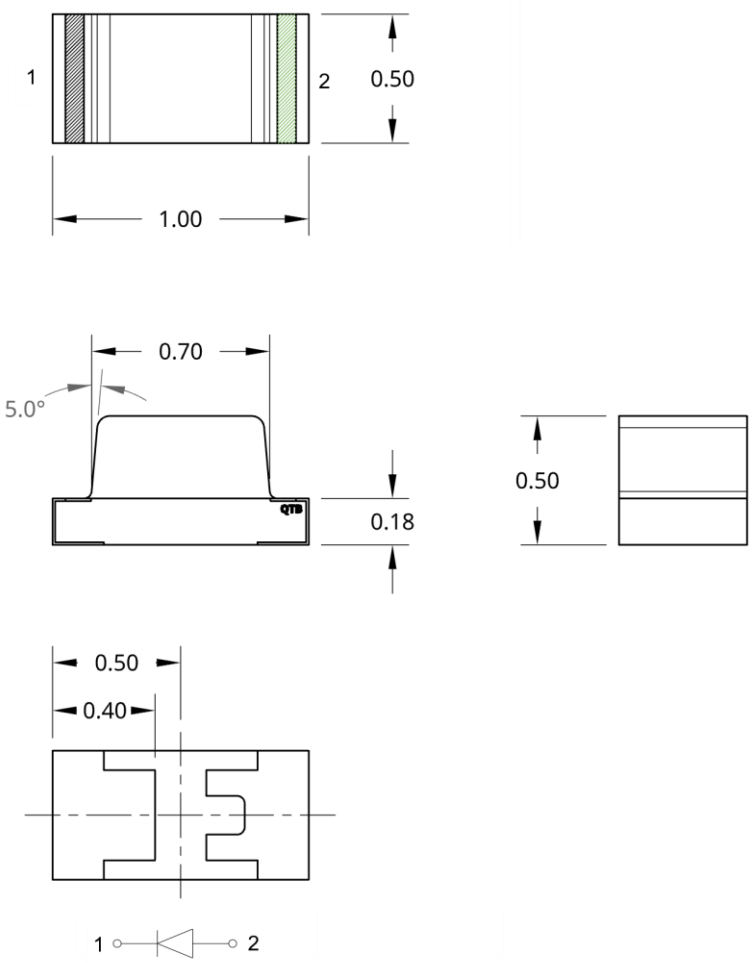
**Application:**

- Status indication
- Back lighting application

**Certification & Compliance:**

- ISO9001
- RoHS Compliant

Dimension:




Units: mm / tolerance = +/-0.1mm



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

| Product | Color | $I_F$ (mA) | $V_F$ (V) | | $\lambda_D$ (nm) | | | $\lambda_P$ (nm) | $I_V$ (mcd) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Typ. | Max. | Min. | Typ. | Max. | Typ. | Min. | Typ. |
| QBLP595-IG-2897 | True Green | 20 | 3.1 | 3.7 | 520 | 525 | 530 | 515 | 400 | 715 |

## Absolute Maximum Rating

| Chip Material | $P_d$ (mW) | $I_F$ (mA) | $I_{FP}$ (mA)* | $V_R$ (V) | $T_{OP}$ (°C) | $T_{ST}$ (°C) | $T_{SOL}$ (°C)** |
|---|---|---|---|---|---|---|---|
| InGaN | 111 | 30 | 100 | 5 | -40 ~ +80 | -40 ~ +85 | 260 |

*Duty 1/10 @ 1KHz
**IR Reflow for no more than 10 sec @ 260 °C

## Forward Voltage $V_F$ @ $I_F$=20mA

| Bin | Min. | Max. | Unit |
|---|---|---|---|
| f | 2.8 | 3.1 | V |
| g | 3.1 | 3.4 | |
| h | 3.4 | 3.7 | |

## Luminous Intensity $I_V$ @ $I_F$=20mA

| Bin | Min. | Max. | Unit |
|---|---|---|---|
| P | 400 | 500 | mcd |
| Q | 500 | 630 | |
| R | 630 | 800 | |
| S | 800 | 1000 | |

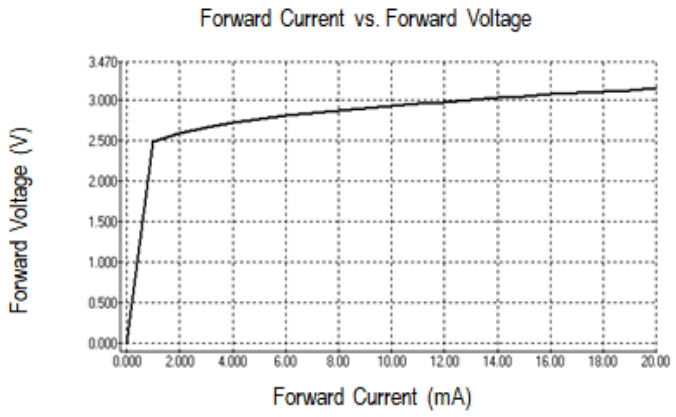
## Dominant Wavelength $\lambda_D$ @ $I_F$=20mA

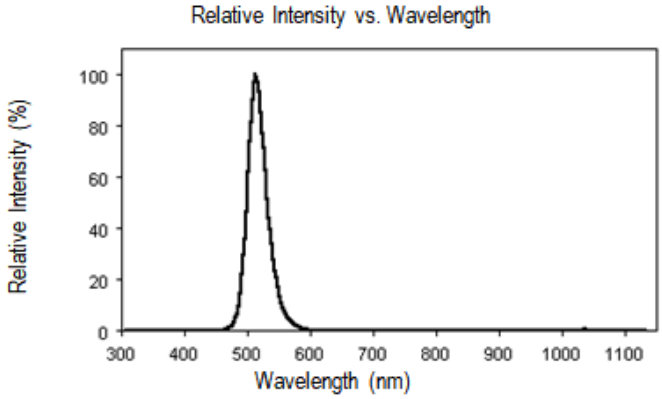
| Bin | Min. | Max. | Unit |
|---|---|---|---|
| U | 520 | 522.5 | nm |
| V | 522.5 | 525 | |
| W | 525 | 527.5 | |
| X | 527.5 | 530 | |

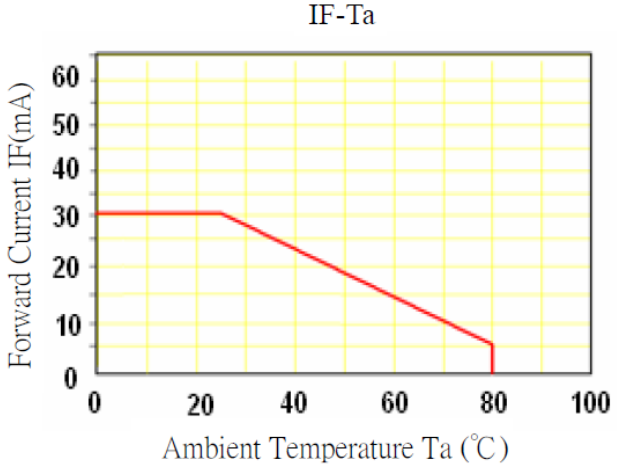


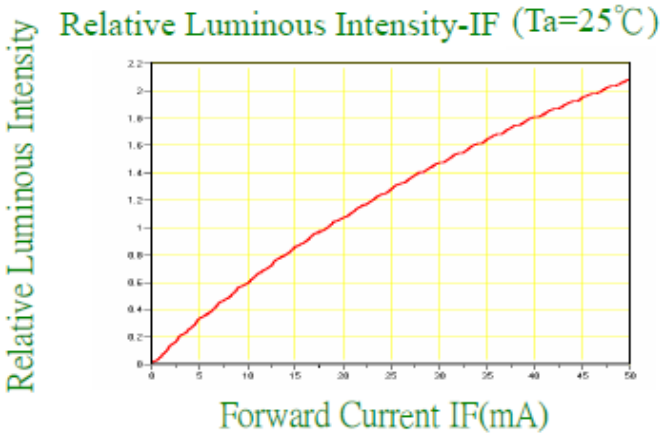
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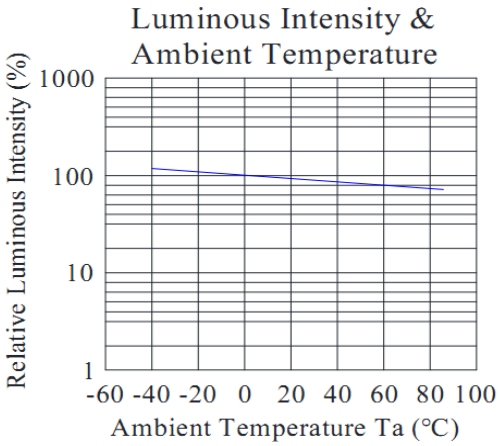
## Characteristic Curves

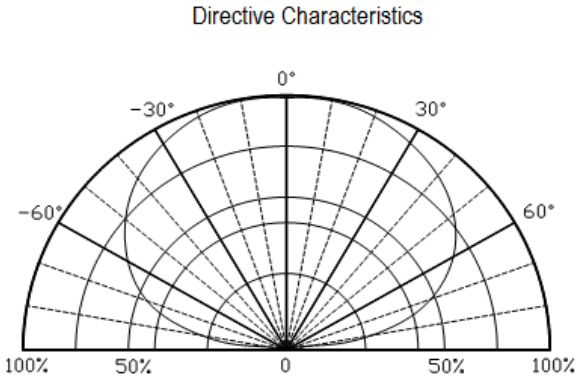


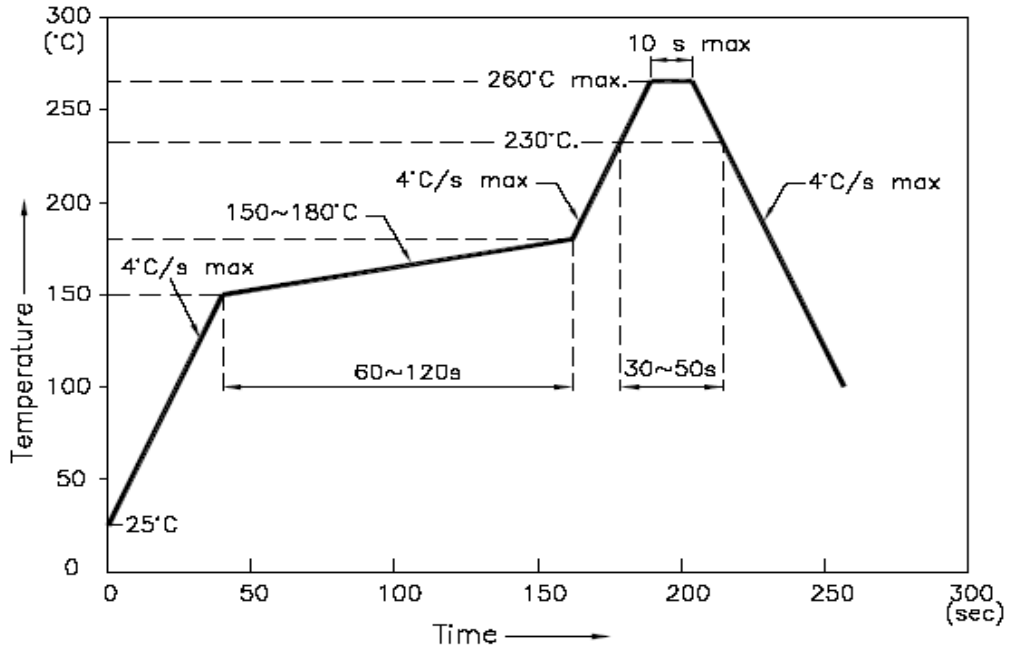





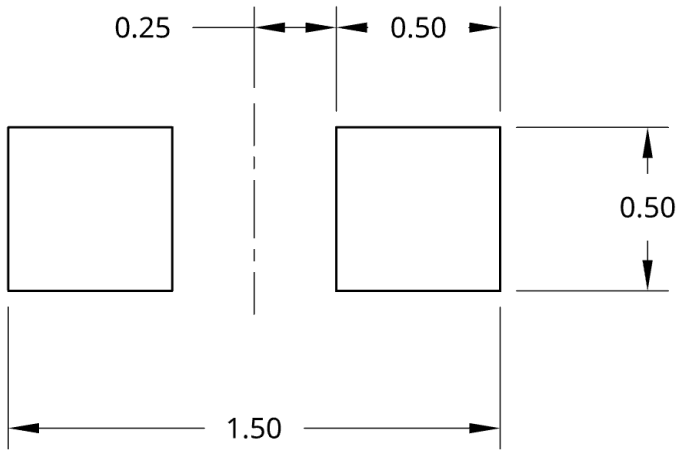

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# Solder Profile & Footprint

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




**Recommended Pad Layout**



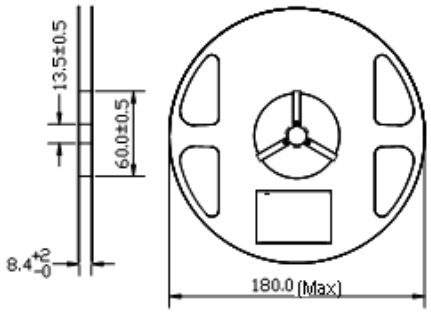

Units: mm



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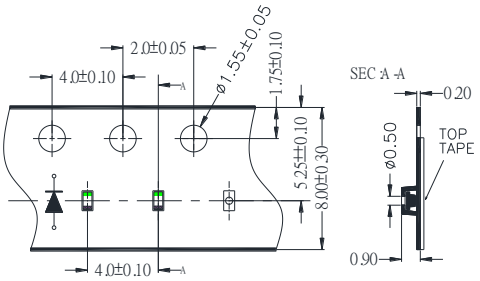
# Packing

Reel Dimension:



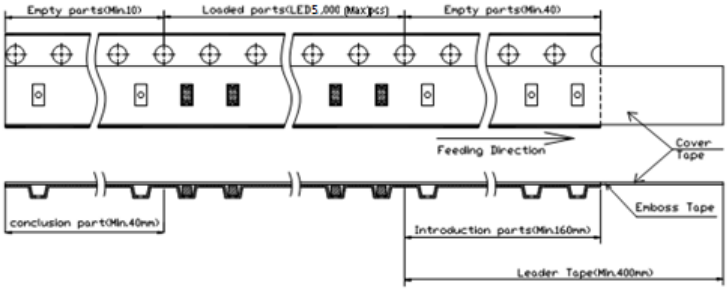

(Unit: mm)

Tape Dimension:

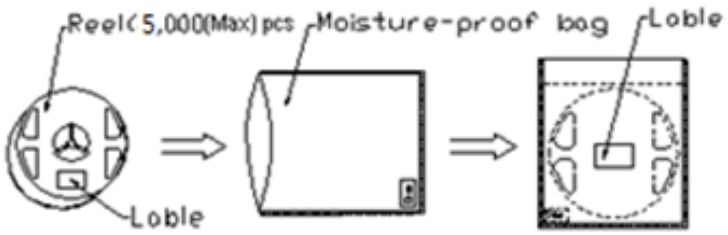



(Unit: mm)

Arrangement of Tape:




Packaging Specifications:






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## Labeling




## Ordering Information

| Orderable Part # | Spec Range | Quantity per reel |
|---|---|---|
| QBLP595-IG-2897 | Iv=715mcd typ. @ 20mA, $\lambda_D$=520nm to 530nm | 5,000 units |



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## Revision History

| Description: | Revision # | Revision Date |
|---|---|---|
| New Release of QBLP595-IG-2897 | V1.0 | 04/01/2021 |
| Add WLP typical value, update $I_V$ typical value | V1.1 | 02/21/2025 |
| Drawing redrafted for clarity and documentation consistency; no changes to form, fit, or function. | V1.2 | 02/13/2026 |
| | | |
| | | |
| | | |
| | | |

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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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