# QT-Brightek Chip LED Series

# SMD 0805 Green LED

## Part No.: QBLP631-IG5-2897

**5: 5mA**
**2897: High Brightness Version**

**Table of Contents:**

# Introduction

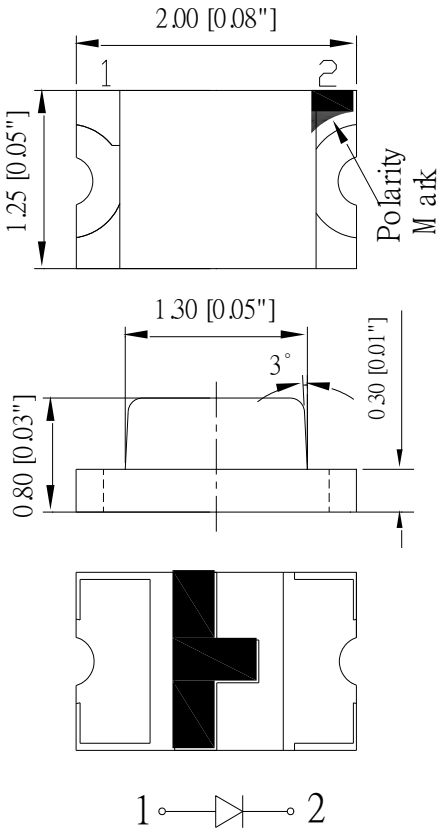
**Feature:**
- Water clear lens
- Package in tap and reel
- 0805 LED package
- InGaN technology
- Viewing angle: 140 deg typ.

**Description:**
These ultra bright 0805 LEDs have a height profile of 0.8mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

**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 | $I_F$ (mA) | $V_F$ (V) | | $\lambda_D$ (nm) | | | $\lambda_P$ (nm) | $I_V$ (mcd) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Typ. | Max. | Min. | Typ. | Max. | Typ. | Min. | Typ. |
| QBLP631-IG5-2897 | Green | 5 | 2.4 | 2.8 | 525 | 530 | 535 | 525 | 250 | 450 |

## Absolute Maximum Rating

| Material | $P_d$ (mW) | $I_F$ (mA) | $I_{FP}$ (mA)* | $V_R$ (V) | $T_{OP}$ (°C) | $T_{ST}$ (°C) | $T_{SOL}$ (°C)** |
|---|---|---|---|---|---|---|---|
| InGaN | 84 | 30 | 125 | 5 | -40 ~ +80 | -40 ~ +85 | 260 |

*Duty 1/8 @ 1KHz
**IR Reflow for no more than 10 sec @ 260 °C

## Forward Voltage $V_F$ @ $I_F$=5mA

| Bin | Min. | Max. | Unit |
|---|---|---|---|
| c | 1.9 | 2.2 | V |
| d | 2.2 | 2.5 | |
| e | 2.5 | 2.8 | |

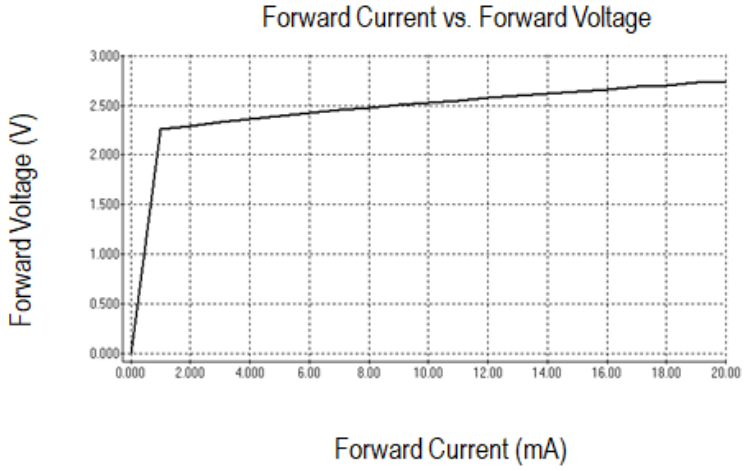
## Luminous Intensity $I_V$ @ $I_F$=5mA

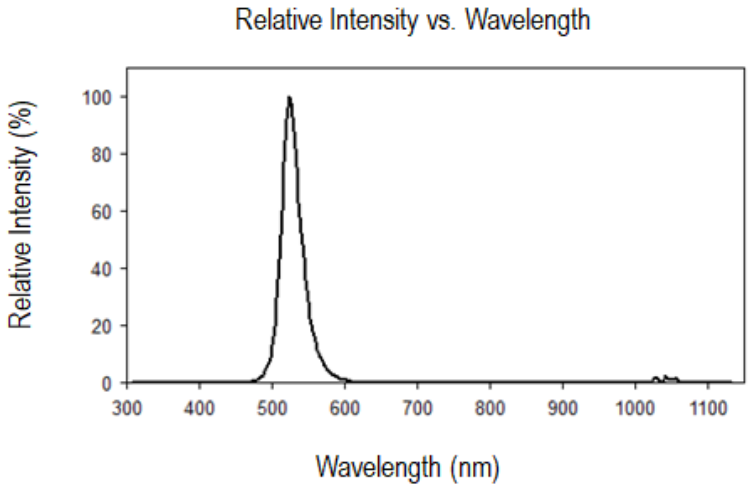
| Bin | Min. | Max. | Unit |
|---|---|---|---|
| N | 250 | 320 | mcd |
| O | 320 | 400 | |
| P | 400 | 500 | |
| Q | 500 | 630 | |
| R | 630 | 800 | |

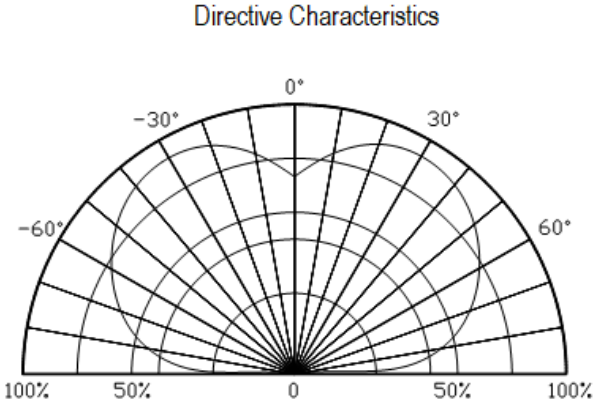
## Dominant Wavelength $\lambda_D$ @ $I_F$=5mA

| Bin | Min. | Max. | Unit |
|---|---|---|---|
| W | 525 | 527.5 | nm |
| X | 527.5 | 530 | |
| Y | 530 | 532.5 | |
| Z | 532.5 | 535 | |

## Characteristic Curves

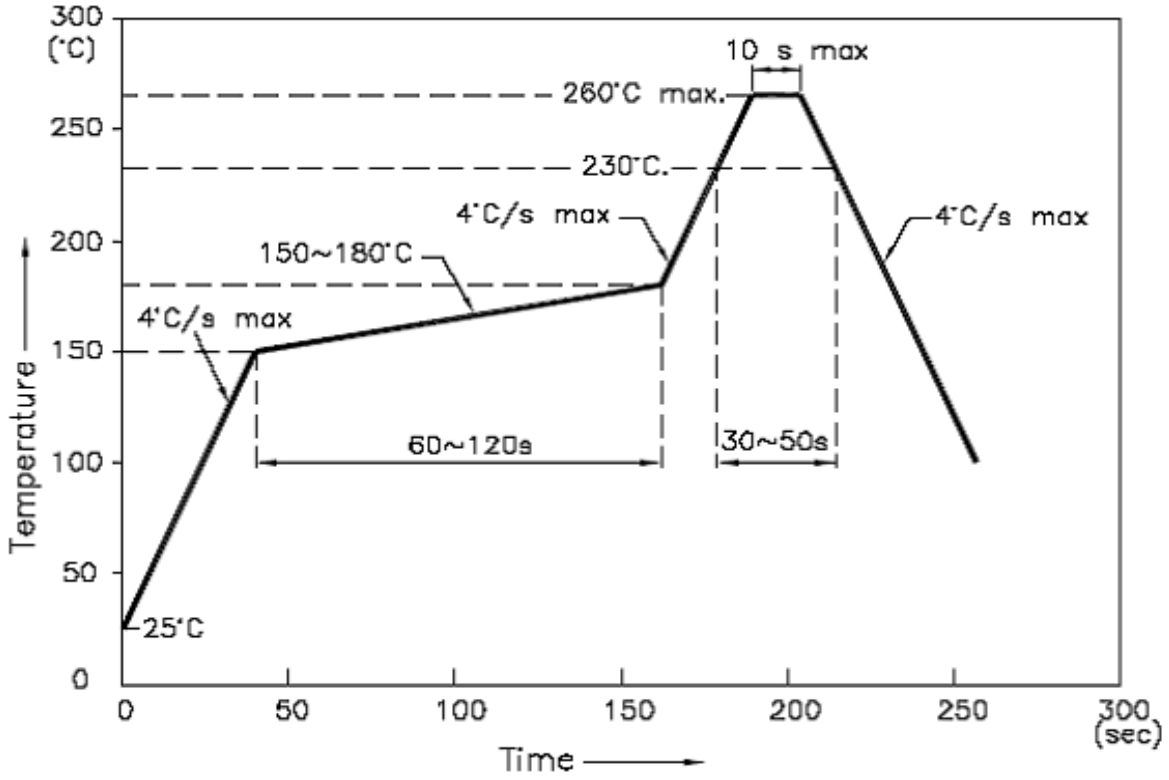


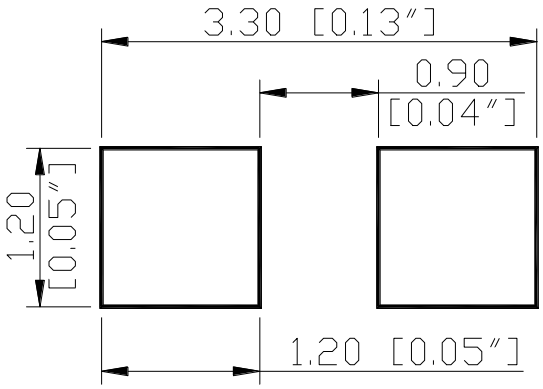



## Solder Profile & Footprint

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



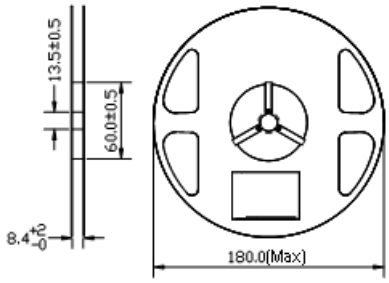

**Recommended Pad Layout**




Units: mm

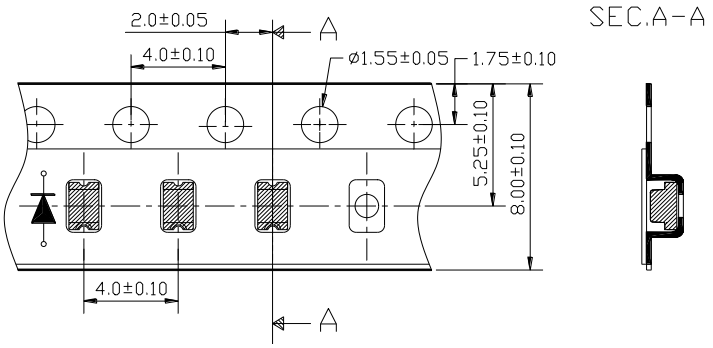
# Packing

## Reel Dimension:



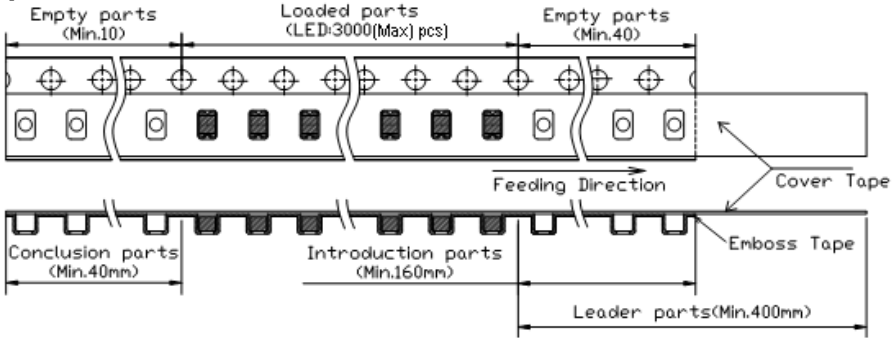

Unit: mm

## Tape Dimension:

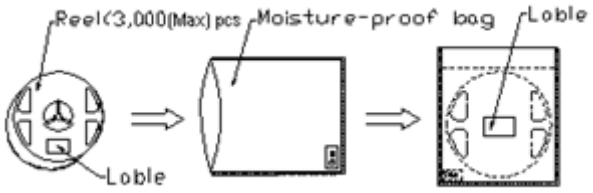



Unit: mm

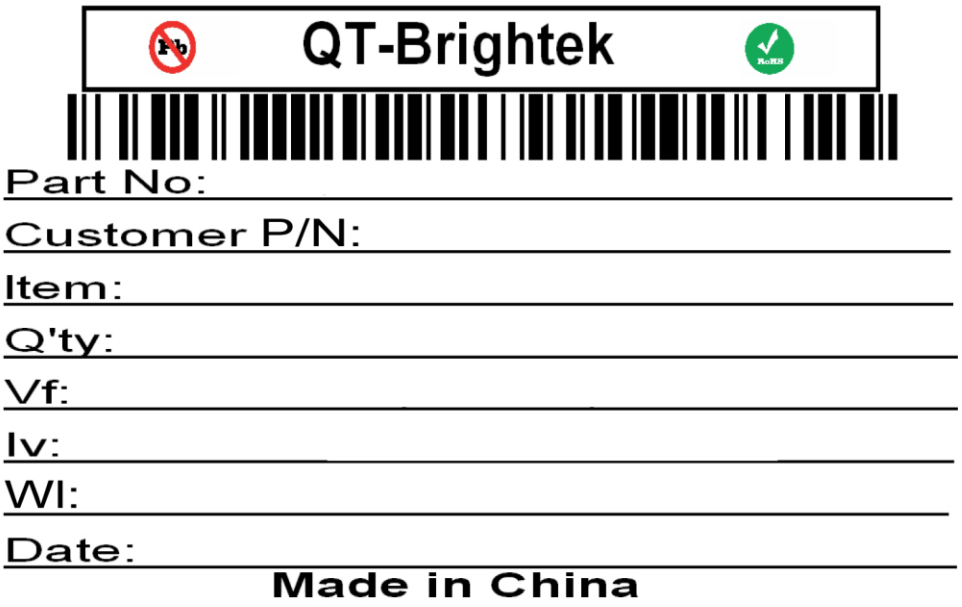
## Arrangement of Tape:




## Packaging Specification:



## Labeling




## Ordering Information

| Orderable Part # | Spec Range | Quantity per reel |
|---|---|---|
| QBLP631-IG5-2897 | Iv=450mcd typ. / $\lambda_D$ = 525nm to 535nm @ 5mA | 3000 units |

## Revision History

| Description: | Revision # | Revision Date |
|---|---|---|
| New Release of QBLP631-IG5-2897 | V1.0 | 03/27/2024 |
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