

QT-Brightek Chip LED Series

SMD 1209 Green LED

Part No.: QBLP653R-IG-2897

**R: Reverse Mount
2897: High Brightness Version**

| | | |
|---------------------------|---------------------|-------------|
| Product: QBLP653R-IG-2897 | Date: July 03, 2024 | Page 1 of 9 |
| | Version# 1.0 | |



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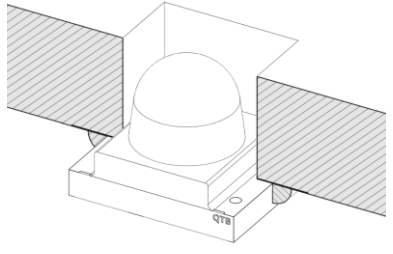
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Introduction

Feature:

- Water clear lens
- Package in tap and reel
- Reverse mount (bottom entry)
- Bright 1209 LED package
- Beam angle: 15 deg typ.
- Pkg height: 2.5mm



Application:

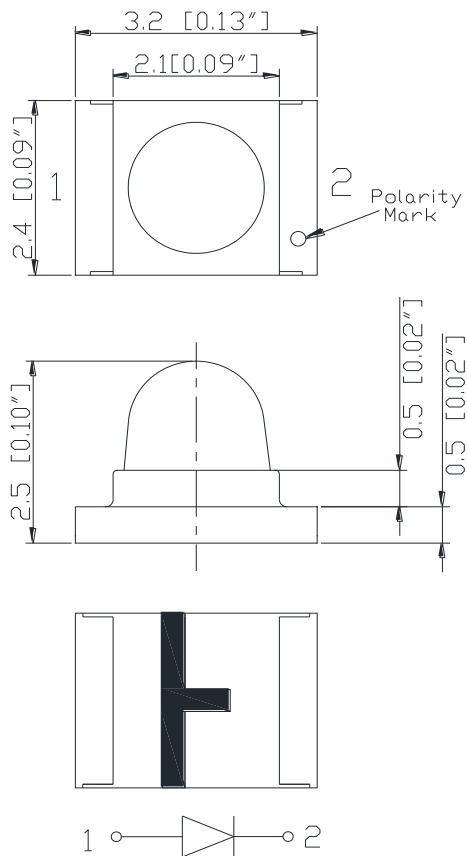
- Status indication
- Back lighting application
- Light pipe
- Signal

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.15mm

Electrical / Optical Characteristic (Ta=25 °C)

| Product | Color | I _F (mA) | V _F (V) | | λ _D (nm) | | | λ _P (nm) | I _V (mcd) | |
|------------------|-------|---------------------|--------------------|------|---------------------|------|------|---------------------|----------------------|-------|
| | | | Typ. | Max. | Min. | Typ. | Max. | Typ. | Min. | Typ. |
| QBLP653R-IG-2897 | Green | 20 | 3.2 | 3.7 | 520 | 525 | 530 | 520 | 5200 | 13000 |

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 | 111 | 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=20mA

| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| e | 2.5 | 2.8 | V |
| f | 2.8 | 3.1 | |
| g | 3.1 | 3.4 | |

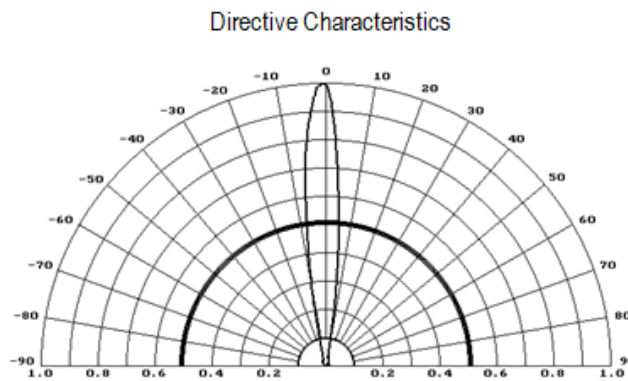
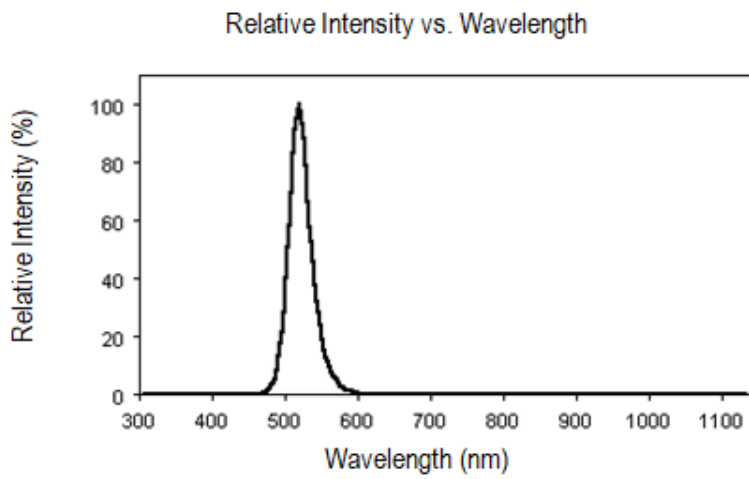
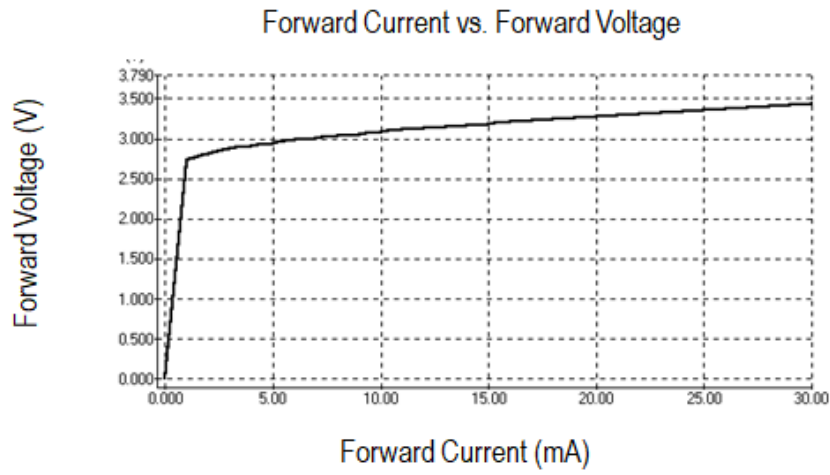
Luminous Intensity I_V @ I_F=20mA

| Bin | Min. | Max. | Unit |
|-----|-------|-------|------|
| a | 5200 | 6800 | mcd |
| b | 6800 | 8800 | |
| c | 8800 | 11200 | |
| d | 11200 | 14200 | |
| e | 14200 | 18000 | |
| f | 18000 | 22500 | |

Dominant Wavelength λ_D @ I_F=20mA

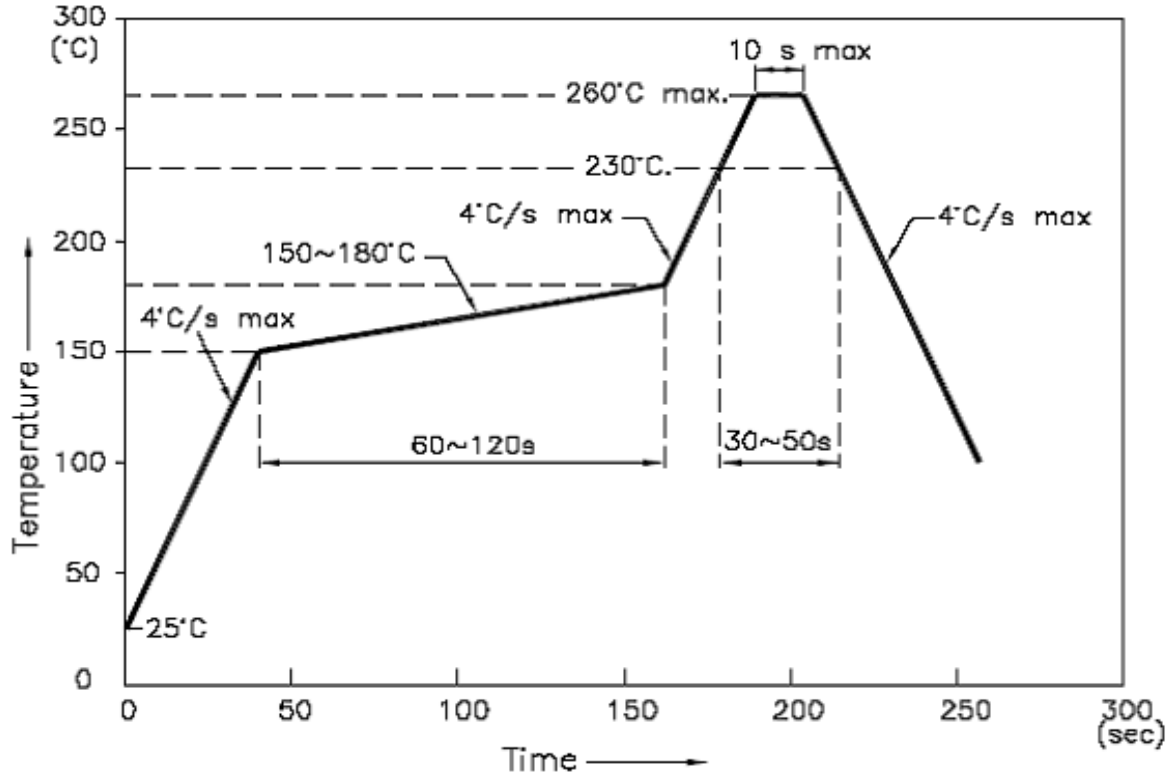
| Bin | Min. | Max. | Unit |
|-----|-------|-------|------|
| U | 520 | 522.5 | nm |
| V | 522.5 | 525 | |
| W | 525 | 527.5 | |
| X | 527.5 | 530 | |

Characteristic Curves



Solder Profile & Footprint

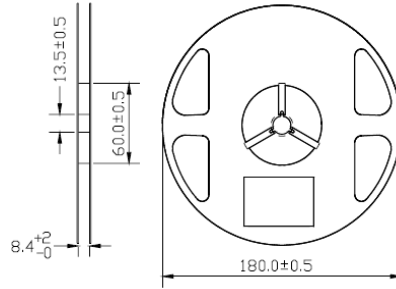
-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



| Recommended Pad Layout | Mounting Illustration |
|------------------------|-----------------------|
| | |
| Unit: mm | |

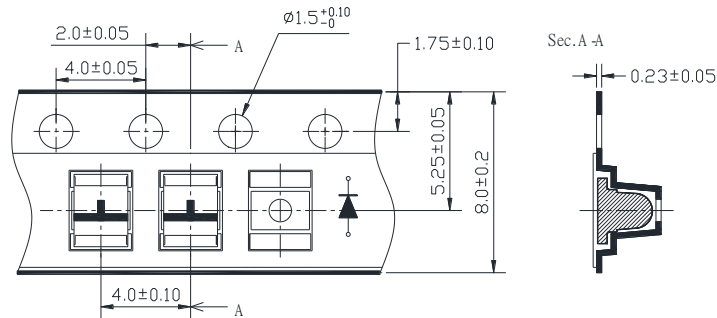
Packing

Reel Dimension:



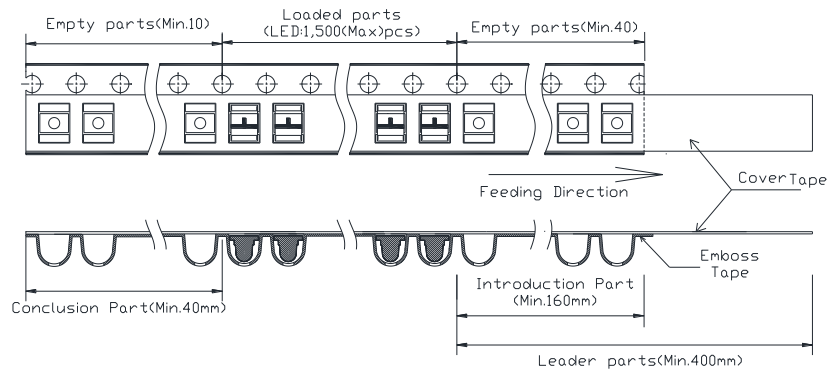
Unit: mm

Tape Dimension:

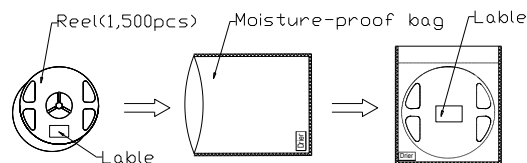


Unit: mm

Arrangement of Tape:



Packaging Specification:





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 |
|------------------|--|-------------------|
| QBLP653R-IG-2897 | Iv=13000mcd typ. / Color = 520nm to 530nm @ 20mA | 1,500 units |



Revision History

| Description: | Revision # | Revision Date |
|---------------------------------|------------|---------------|
| New Release of QBLP653R-IG-2897 | V1.0 | 07/03/2024 |
| | | |
| | | |
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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.