

QT-Brightek Chip LED Series

SMD 1208 Green LED

Part No.: QBLP653-IG5

5: 5mA

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Introduction

Feature:

- Water clear lens
- Package in tap and reel
- Bright 1208 LED package
- AllnGaP technology
- Viewing angle: 15 deg typ.

Description:

This bright 1208 LED has a height profile of 2.5mm. With narrow viewing angle, LED produces high bright light output.

Application:

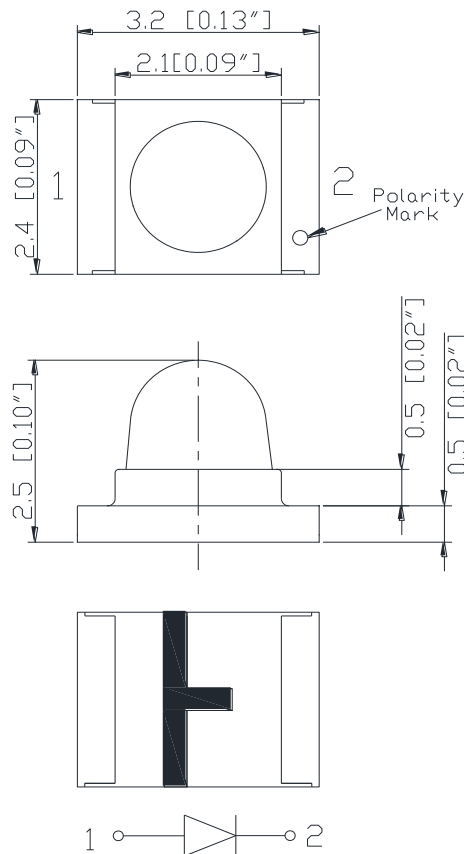
- Status indication
- Back lighting application

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) | | | I _V (mcd) | |
|-------------|-------|---------------------|--------------------|------|---------------------|------|------|----------------------|------|
| | | | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. |
| QBLP653-IG5 | Green | 5 | 2.8 | 3.4 | 525 | 530 | 535 | 2500 | 5000 |

Absolute Maximum Rating

| Material | P _d (mW) | I _F (mA) | I _{FP} (mA)* | V _R (V) | T _{OP} (°C) | T _{ST} (°C) | T _{SO L} (°C)** |
|----------|---------------------|---------------------|-----------------------|--------------------|----------------------|----------------------|--------------------------|
| InGaN | 102 | 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 |
|-----|------|------|------|
| e | 2.5 | 2.8 | V |
| f | 2.8 | 3.1 | |
| g | 3.1 | 3.4 | |

Luminous Intensity I_V @ I_F=5mA

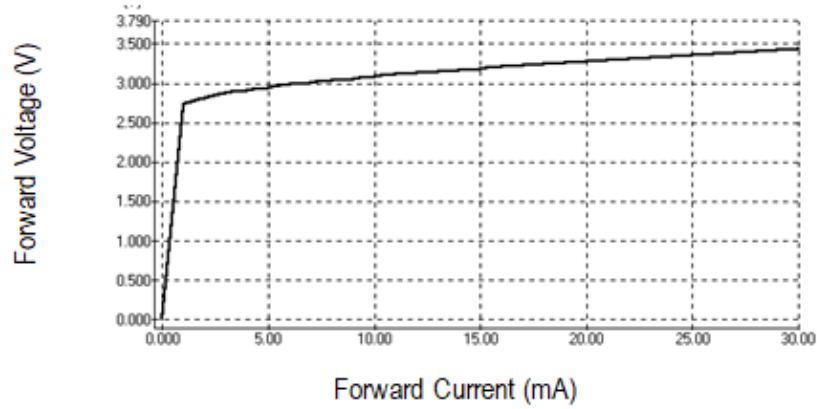
| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| X | 2500 | 3200 | mcd |
| Y | 3200 | 4000 | |
| Z | 4000 | 5200 | |
| a | 5200 | 6800 | |
| b | 6800 | 8800 | |

Dominant Wavelength λ_D @ I_F=5mA

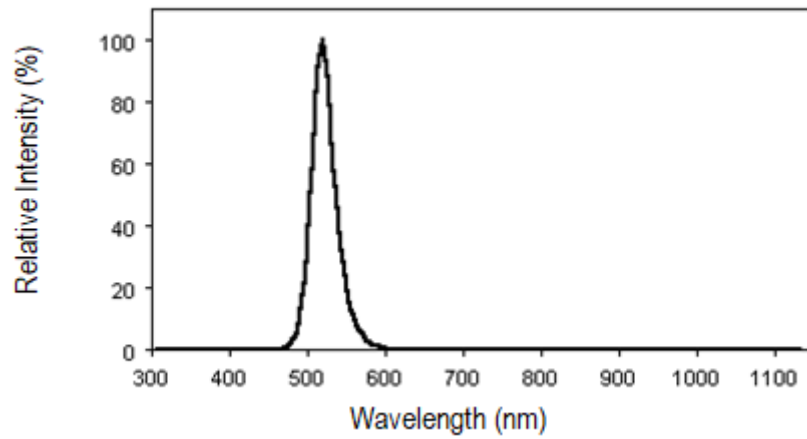
| Bin | Min. | Max. | Unit |
|-----|-------|-------|------|
| W | 525 | 527.5 | nm |
| X | 527.5 | 530 | |
| Y | 530 | 532.5 | |
| Z | 532.5 | 535 | |

Characteristic Curves

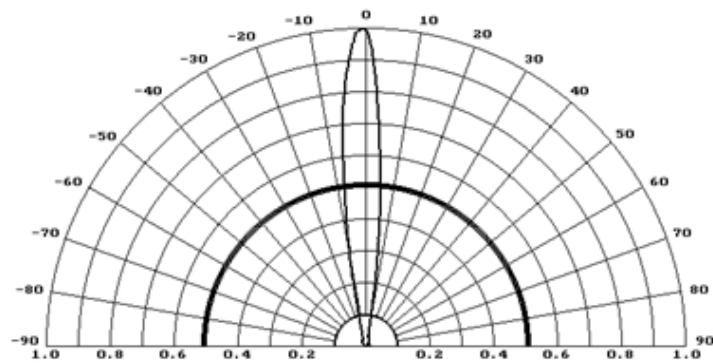
Forward Current vs. Forward Voltage



Relative Intensity vs. Wavelength

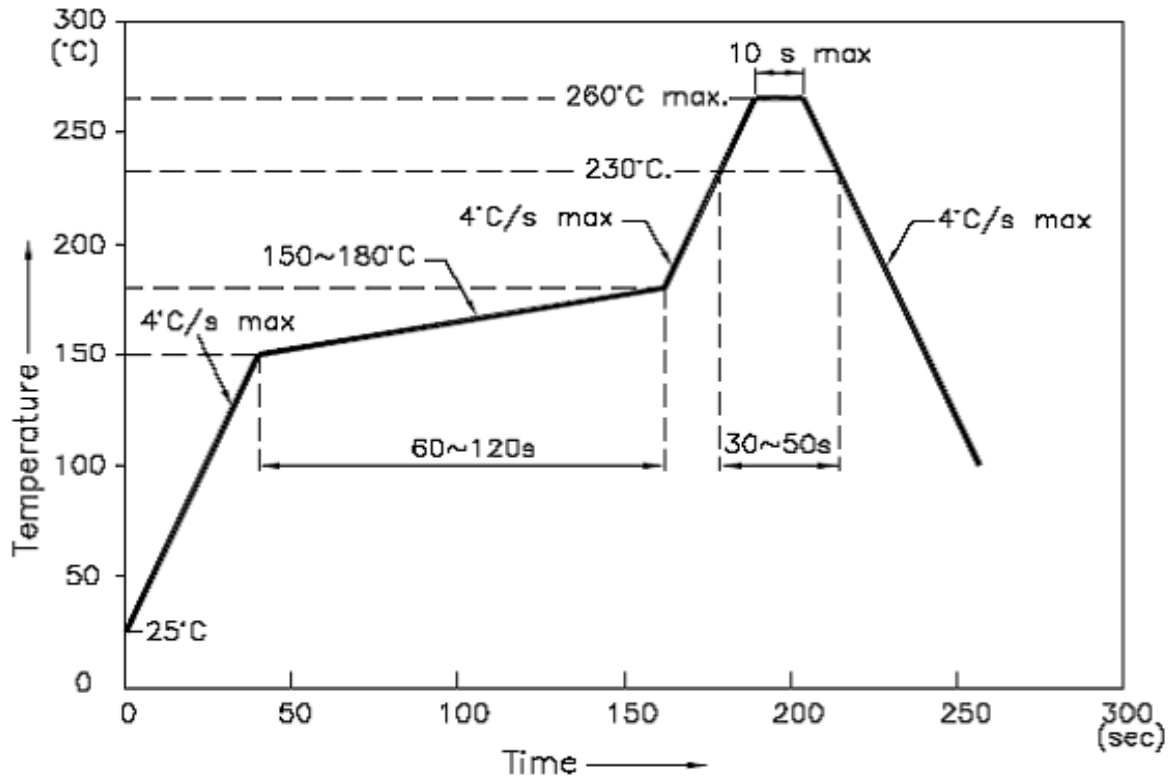


Directive Characteristics

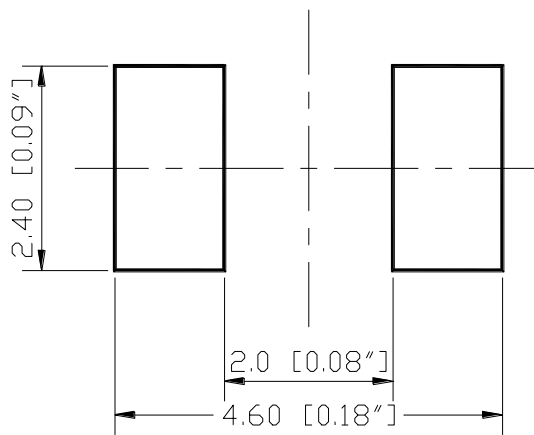


Solder Profile & Footprint

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



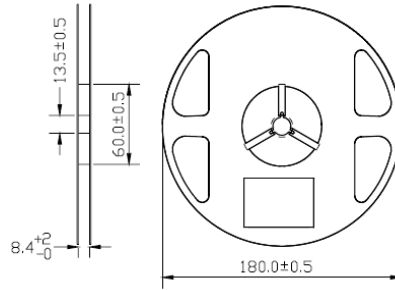
Recommended Pad Layout



Units: mm

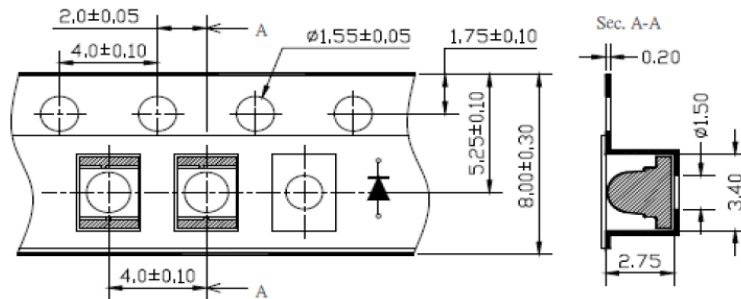
Packing

Reel Dimension:



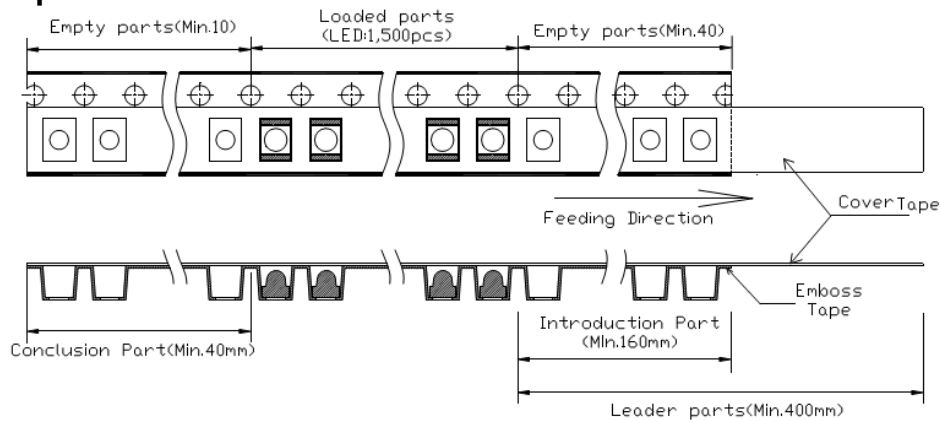
Unit: mm

Tape Dimension:

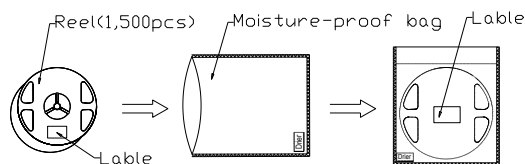


Unit: mm

Arrangement of Tape:



Packaging Specification:



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

Labeling



Part No: _____

Customer P/N: _____

Item: _____

Q'ty: _____

Vf: _____

Iv: _____

VI: _____

Date: _____

Made in China

Ordering Information

| Part # | Orderable Part # | Spec Range | Quantity per reel |
|-------------|------------------|--|-------------------|
| QBLP653-IG5 | QBLP653-IG5 | Iv=5000mcd typ. / Color = 525nm to 535nm @ 5mA | 1,500 units |

Revision History

| Description: | Revision # | Revision Date |
|----------------------------|------------|---------------|
| New Release of QBLP653-IG5 | V1.0 | 03/07/2023 |
| | | |
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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.