



## **Features**

• Radial / Through hole package

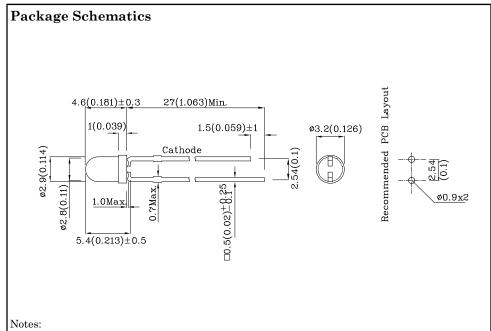
www.SunLEDusa.com

- $\bullet$  Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS Compliant

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- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

| Absolute Maximum Ratings (T <sub>A</sub> =25°C)                |                     | Green<br>(GaP) | Unit |  |  |
|--|---------------------|----------------|------|--|--|
| Reverse Voltage  | $V_{\mathrm{R}}$    | 5              | V    |  |  |
| Forward Current  | $I_{\mathrm{F}}$    | 25             | mA   |  |  |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | ifs                 | 140            | mA   |  |  |
| Power Dissipation  | $P_{D}$             | 62.5           | mW   |  |  |
| Operating Temperature  | $T_A$ -40 ~ +85     |                | °C   |  |  |
| Storage Temperature  | Tstg                | -40 ~ +85      |      |  |  |
| Lead Solder Temperature<br>[2mm Below Package Base]            | 260°C For 3 Seconds |                |      |  |  |
| Lead Solder Temperature<br>[5mm Below Package Base]            | 260°C For 5 Seconds |                |      |  |  |

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

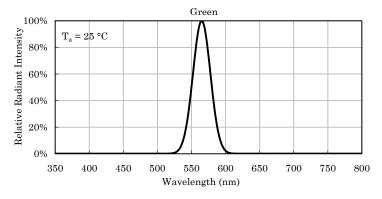
| Operating Characteristics (T <sub>A</sub> =25°C)                             |                     | Green<br>(GaP) | Unit |
|--|---------------------|----------------|------|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =10mA)                             | $V_{\mathrm{F}}$    | 2              | V    |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =10mA)                             | $V_{\mathrm{F}}$    | 2.4            | V    |
| Reverse Current (Max.) $(V_R=5V)$  | $I_{R}$             | 10             | uA   |
| Wavelength of Peak<br>Emission CIE127-2007* (Typ.)<br>(I <sub>F</sub> =10mA) | λР                  | 565*           | nm   |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=10\text{mA})$      | λD                  | 568*           | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =10mA) | $\triangle \lambda$ | 30             | nm   |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                           | С                   | 15             | pF   |

| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color     | Luminous Intensity<br>CIE127-2007*<br>(I <sub>F</sub> =10mA)<br>mcd |      | Wavelength<br>CIE127-2007*<br>nm<br>λP | Viewing<br>Angle<br>20 1/2 |
|----------------|-------------------|----------------------|----------------|---|------|--|----------------------------|
|                |                   |                      |                | min.  | typ. |  |                            |
| XLUG11D        | Green             | GaP                  | Green Diffused | 10*   | 24*  | 565*                                   | 50°                        |

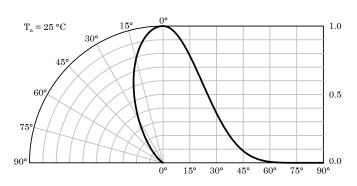
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.





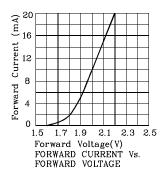


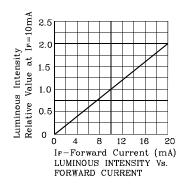
Relative Intensity Vs. CIE Wavelength

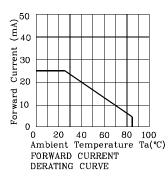


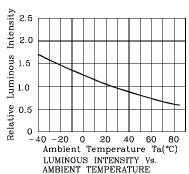
Spatial Distribution

## Green

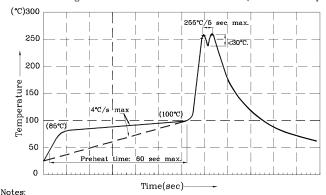








Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



Notes. I. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of  $260^{\circ}C$  2. Peak wave soldering temperature between  $245^{\circ}C \sim 255^{\circ}C$  for 3 sec

(5 sec max).

3.Do not apply stress to the epoxy resin while the temperature is above  $85\,^\circ\text{C}.$  4.Fixtures should not incur stress on the component when mounting and

during soldering process. 5.SAC 305 solder alloy is recommended.

6. No more than one wave soldering pass

#### Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength),

the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm

2. Luminous Intensity / Luminous Flux: +/-15%

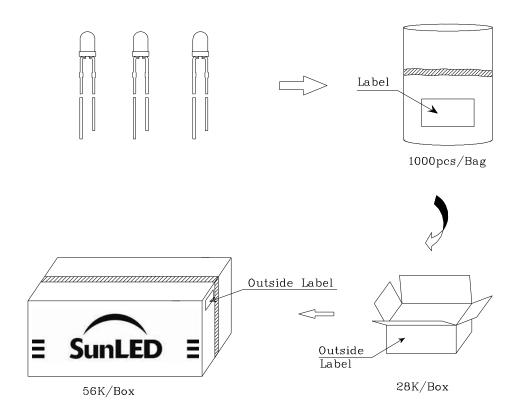
3. Forward Voltage: +/-0.1V

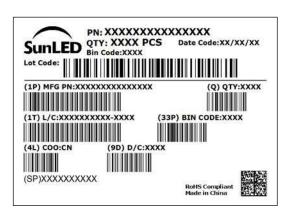
Note: Accuracy may depend on the sorting parameters.





# PACKING & LABEL SPECIFICATIONS





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XDSA7579 V7-Z Layout: Maggie L.