



 $3.0 \mathrm{x} 2.0 \mathrm{mm}$  RIGHT ANGLE SMD LED

### **Features**

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- $\bullet$  MSL (Moisture Sensitivity Level): 3
- RoHS compliant

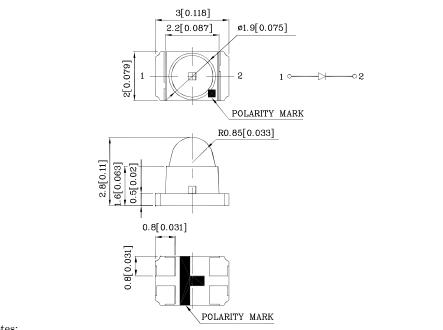






ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

### Package Schematics



### Notes

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

| Absolute Maximum Ratings (T <sub>A</sub> =25°C)                | Orange<br>(AlGaInP) | Unit      |    |  |
|--|---------------------|-----------|----|--|
| Reverse Voltage  | $V_{\mathrm{R}}$    | 5         | V  |  |
| Forward Current  | $I_{\mathrm{F}}$    | 30        | mA |  |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | ifs                 | 195       | mA |  |
| Power Dissipation  | $P_{D}$             | 75        | mW |  |
| Operating Temperature  | $T_{\rm A}$         | -40 ~ +85 | °C |  |
| Storage Temperature  | Tstg                | -40 ~ +85 | C  |  |

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)                             |                     | Orange<br>(AlGaInP) | Unit |
|--|---------------------|---------------------|------|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =20mA)                             | $V_{\mathrm{F}}$    | 2.1                 | V    |
| Forward Voltage (Max.) (I <sub>F</sub> =20mA)                                | $V_{\mathrm{F}}$    | 2.5                 | V    |
| Reverse Current (Max.) (V <sub>R</sub> =5V)                                  | $I_{\mathrm{R}}$    | 10                  | uA   |
| Wavelength of Peak<br>Emission CIE127-2007* (Typ.)<br>(I <sub>F</sub> =20mA) | λΡ                  | 610*                | nm   |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=20\text{mA})$      | λD                  | 601*                | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =20mA) | $\triangle \lambda$ | 29                  | nm   |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                           | С                   | 15                  | pF   |

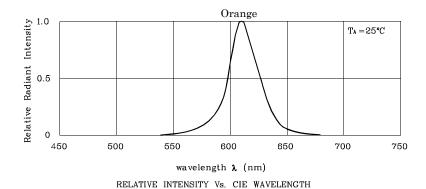
| <br>Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color  | Luminous<br>CIE127<br>(I <sub>F</sub> =20<br>me | 7-2007*<br>OmA) | Wavelength<br>CIE127-2007*<br>λP<br>nm | Viewing<br>Angle<br>20 1/2 |
|--------------------|-------------------|----------------------|-------------|---|-----------------|--|----------------------------|
|                    |                   |                      |             | min.  | typ.            |  |                            |
| XZMOK50W-2         | Orange            | AlGaInP              | Water Clear | 3600<br>1900*                                   | 4990<br>2990*   | 610*                                   | 10°                        |

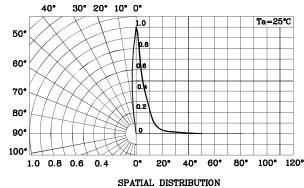
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

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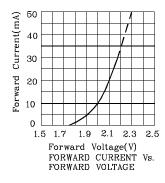


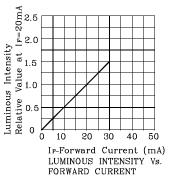


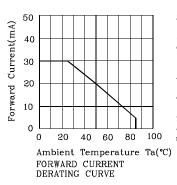


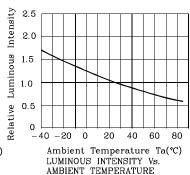


### **❖** Orange



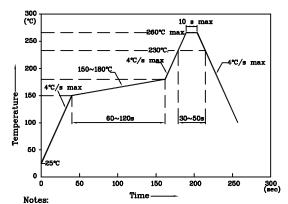






LED is recommended for reflow soldering and soldering profile is shown below.

Reflow Soldering Profile for SMD Products (Pb-Free Components)

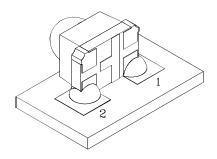


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

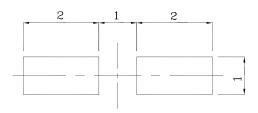




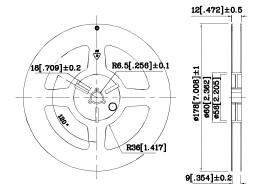
# ❖ The device has a single mounting surface. The device must be mounted according to the specifications.



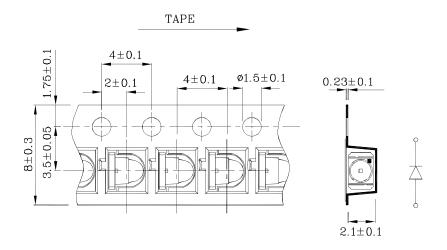
## **♦** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



### **❖** Reel Dimension



### **❖** Tape Specification (Units:mm)



### 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:

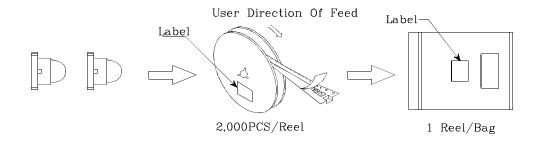
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

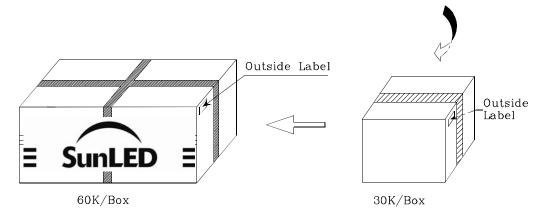
Note: Accuracy may depend on the sorting parameters.

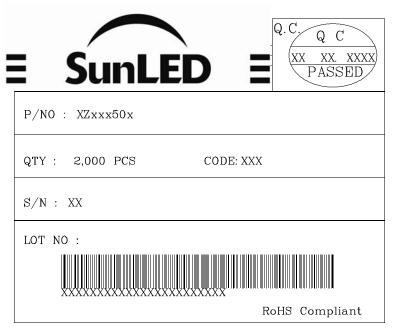




### PACKING & LABEL SPECIFICATIONS







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