

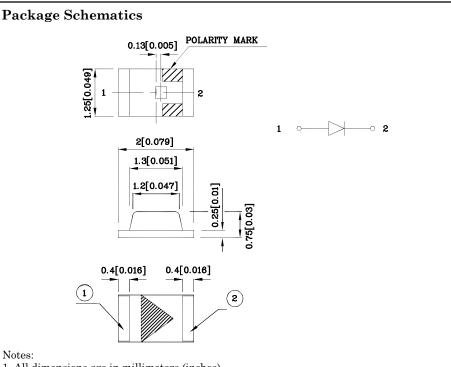
### Part Number: XZUR54W-1

2.0x1.25mm SMD CHIP LED LAMP

### **Features**

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





1. All dimensions are in millimeters (inches).

2. Tolerance is  $\pm 0.1(0.004")$  unless otherwise noted.

3. Specifications are subject to change without notice.

| Absolute Maximum Ratings<br>(T <sub>A</sub> =25°C)             |              | UR<br>(GaAsP/<br>GaP) | Unit |  |
|--|--------------|-----------------------|------|--|
| Reverse Voltage  | $V_{\rm R}$  | 5                     | V    |  |
| Forward Current  | $I_{\rm F}$  | 30                    | mA   |  |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | $i_{\rm FS}$ | 160                   | mA   |  |
| Power Dissipation  | $P_{D}$      | 75                    | mW   |  |
| Operating Temperature  | TA           | -40 ~ +85             | °C   |  |
| Storage Temperature  | Tstg         | $-40 \sim +85$        | C    |  |

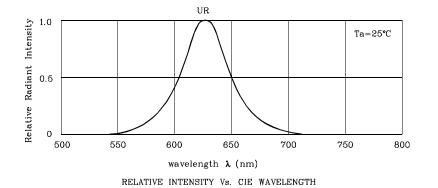
| Operating Characteristics<br>(T <sub>A</sub> =25°C)                              |                    | UR<br>(GaAsP/GaP) | Unit        |  |
|--|--------------------|-------------------|-------------|--|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =20mA)                                 | $V_{\rm F}$        | 2                 | V           |  |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =20mA)                                 | $V_{\rm F}$        | 2.5               | V           |  |
| Reverse Current (Max.)<br>(V <sub>R</sub> =5V)                                   | $I_R$              | 10                | uA          |  |
| Wavelength of Peak<br>Emission CIE127-2007* (Typ.)<br>(I <sub>F</sub> =20mA)     | λР                 | 627*              | nm          |  |
| Wavelength of Dominant<br>Emission CIE127-2007* (Typ.)<br>(I <sub>F</sub> =20mA) | λD                 | 617*              | nm          |  |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =20mA)     | $	riangle \lambda$ | 45                | nm          |  |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                               | С                  | 15                | $_{\rm pF}$ |  |

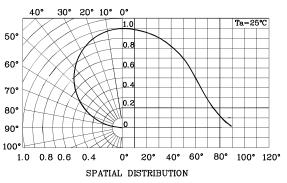
| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color  | Luminous Intensity<br>CIE127-2007*<br>(I <sub>F</sub> =20mA)<br>mcd |                  | Wavelength<br>CIE127-2007*<br>nm<br>λP | Viewing<br>Angle<br>20 1/2 |
|----------------|-------------------|----------------------|-------------|---|------------------|--|----------------------------|
|                |                   |                      |             | min.  | typ.             |  |                            |
| XZUR54W-1      | Red               | GaAsP/GaP            | Water Clear | 8<br>3*   | $\frac{14}{7^*}$ | 627*                                   | 120°                       |

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

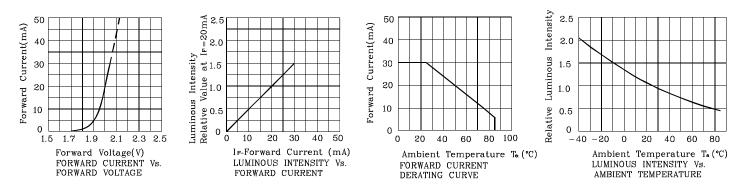
Mar 25,2014





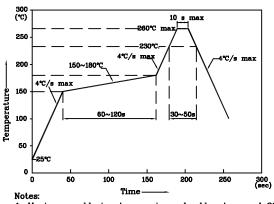


♦ UR



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

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

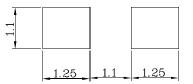


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C 3. Do not put stress to the epoxy resin during
- high temperatures conditions

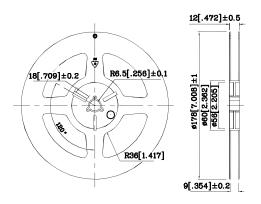


✤ The device has a single mounting surface. The device must be mounted according to the specifications.

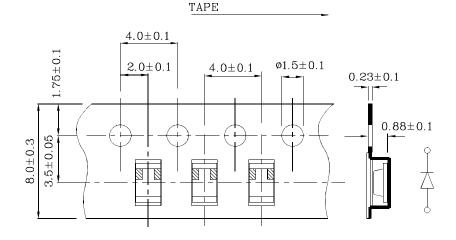
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



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

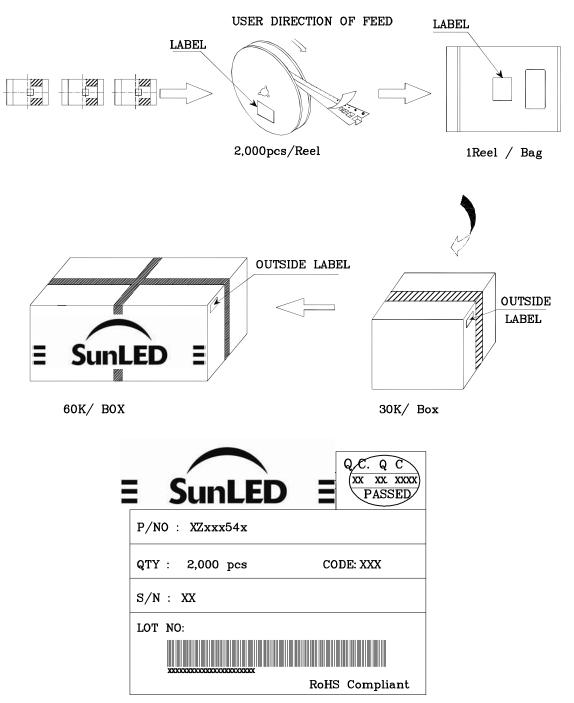
2. Luminous intensity / luminous flux: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.



## **PACKING & LABEL SPECIFICATIONS**



### TERMS OF USE

- 1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
- 2. Contents within this document are subject to improvement and enhancement changes without notice.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet.
- User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
- 4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
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- 6. Additional technical notes are available at http://www.SunLEDusa.com/TechnicalNotes.asp