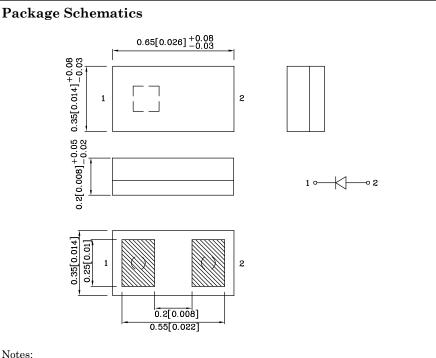


Part Number: XZMDR155W

0.65x0.35x0.2mm (0201) SMD CHIP LED LAMP

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 4,000pcs/ Reel
- \bullet MSL (Moisture Sensitivity Level): 2
- \bullet RoHS compliant





Notes: 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 (T _A =25°C) | | Red (AlGaInP) | Unit | |
|--|---------------------------|------------------|------|--|
| Reverse Voltage | $V_{\rm R}$ | 5 | V | |
| Forward Current | I_{F} | 20 | mA | |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | ifs | 100 | mA | |
| Power Dissipation | \mathbf{P}_{D} | 48 | mW | |
| Operating Temperature | $T_{\rm A}$ | -40 ~ +85 | °C | |
| Storage Temperature | Tstg | $-40 \sim +85$ | U | |

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)

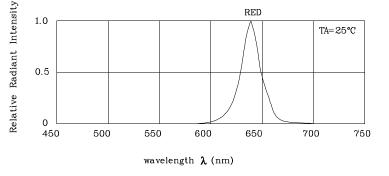
| Operating Characteristics (T _A =25°C) | Red (AlGaInP) | Unit | |
|---|--------------------|------|----|
| Forward Voltage (Typ.) (I _F =10mA) | V_{F} | 1.92 | V |
| Forward Voltage (Max.) (I _F =10mA) | $V_{\rm F}$ | 2.4 | V |
| Reverse Current (Max.) (V _R =5V) | I_R | 10 | uA |
| Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =10mA) | λP | 639* | nm |
| Wavelength of Dominant Emission CIE127-2007*(Typ.) (I _F =10mA) | λD | 631* | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) (I _F =10mA) | $	riangle \lambda$ | 20 | nm |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* (I _F =10mA) mcd | | Wavelength CIE127-2007* nm λP | Viewing Angle 20 1/2 |
|----------------|-------------------|----------------------|-------------|---|------------|--|----------------------------|
| | | | | min. | typ. | | |
| XZMDR155W | Red | AlGaInP | Water Clear | 30 10* | 103 34* | 639* | 140° |

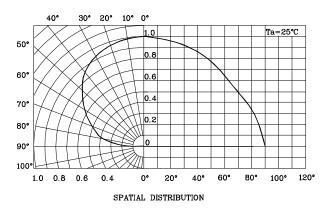
*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

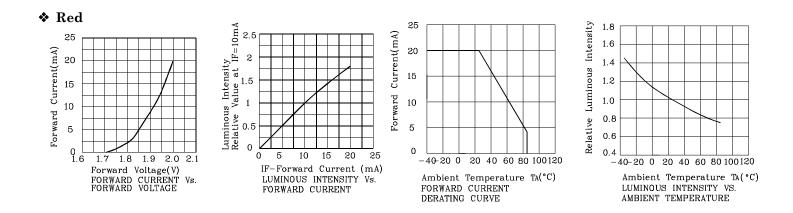
Jun 23,2016

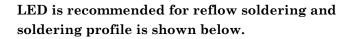




RELATIVE INTENSITY Vs. CIE WAVELENGTH







Reflow Soldering Profile for SMD Products (Pb-Free Components) 300 (°C) 10 s max 250 4°C/s C/s max 200 150~180 4°C/s max 150 Temperature 30~50s 80~120s 100 50 0 150 0 50 100 200 250 300 (sec) Time Notes:

1. Maximum soldering temperature should not exceed 260°C 2. Recommended reflow temperature: 145°C-260°C

Do not put stress to the epoxy resin during З.

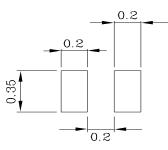
high temperatures conditions



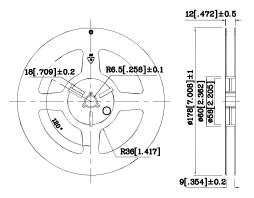
The device has a single mounting surface. The device must be mounted according to the specifications.

Reel Dimension

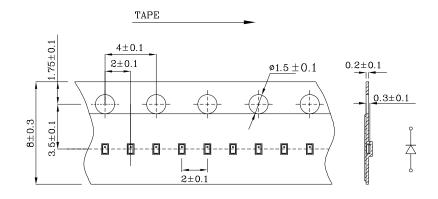
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Mask open area ratio:80% Mask thickness:80~100um



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

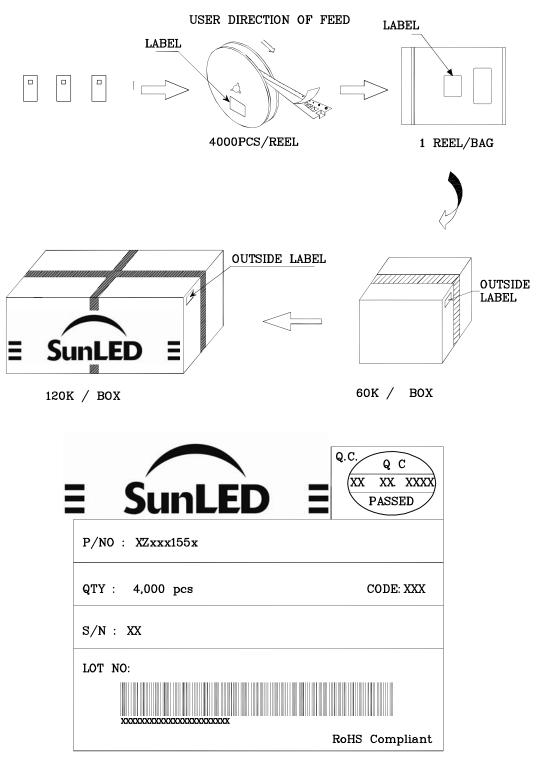
2. Luminous intensity / luminous flux: +/-15%

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.
- 5. The contents within this document may not be altered without prior consent by SunLED.
- 6. Additional technical notes are available at http://www.SunLEDusa.com/TechnicalNotes.asp

Jun 23,2016

XDSB8225 V4-X Layout: Maggie L.