

Part Number: XZMEKXVG161W

2.5 x 0.7 mm Right Angle SMD Chip LED Lamp

Features

 \bullet 2.5 x 0.7 x 1.0 mm right angle SMD LED

www.SunLEDusa.com

- Ideal for indication on hand held products
- Low current operation
- Standard Package: 3,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- Halogen-free
- RoHS compliant

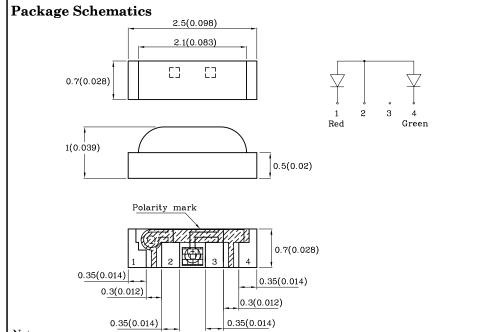






ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE

DEVICES



- Notes:
- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.15(0.006")$ unless otherwise noted.
- 3. Specifications are subject to change without notice.
- 4. The solder stencil thickness for right angle SMD LEDs should be at least 5mil in order to prevent poor solder wetting.

| Absolute Maximum Ratings (T_A =25°C) | | Red (AlGaI nP) | Green (AlGaI nP) | Unit |
|--|------------------|----------------------|------------------------|------|
| Reverse Voltage | V_{R} | 5 | 5 | V |
| Forward Current | I_{F} | 30 | 30 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | ifs | 195 | 150 | mA |
| Power Dissipation | P_D | 75 | 75 | mW |
| Operating Temperature | $T_{\rm A}$ | -40 ~ +85 | | °C |
| Storage Temperature | Tstg | -40 | | |

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 (AlGaI nP) | Green (AlGaI nP) | Unit | |
|--|----------------------|------------------------|------|----|
| Forward Voltage (Typ.) (I _F =20mA) | V_{F} | 2.0 | 2.1 | V |
| Forward Voltage (Max.) (I _F =20mA) | V_{F} | 2.5 | 2.5 | V |
| Reverse Current (Max.) (V _R =5V) | I_R | 10 | 10 | μА |
| Wavelength of Peak Emission CIE127-2007* (Typ.) (I _F =20mA) | λΡ | 630* | 574* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) (I _F =20mA) | λD | 621* | 570* | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA) | Δλ | 20 | 20 | nm |
| Capacitance (Typ.) (V _F =0V, f=1MHz) | С | 25 | 15 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | CIE127-2007* (I _F =20mA) mcd | | Wavelength CIE127-2007* nm λP | Viewing Angle 20 1/2 |
|----------------|-------------------|----------------------|---------------|---|------------|--|----------------------------|
| | | | | min. | typ. | | |
| XZMEKXVG161W — | Red | AlGaInP | – Water Clear | 80 20* | 108 39* | 630* | 130° |
| | Green | AlGaInP | - water Clear | 20 20* | 44 44* | 574* | |

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

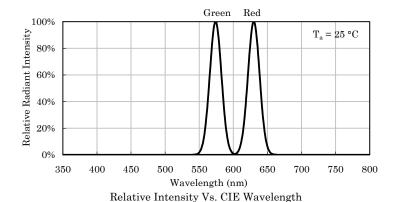
Apr 24,2023

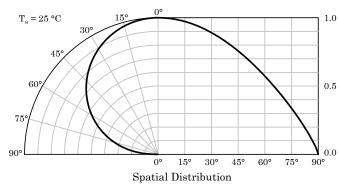




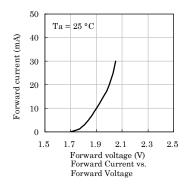
 2.5×0.7 mm Right Angle SMD Chip LED Lamp

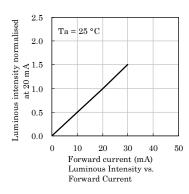


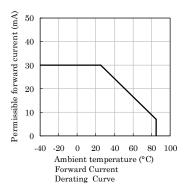


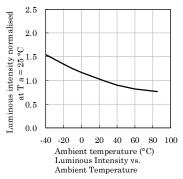


* Red

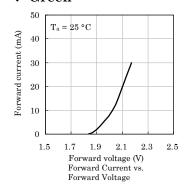


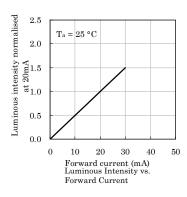


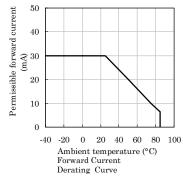


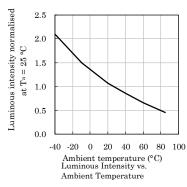


❖ Green









Apr 24,2023

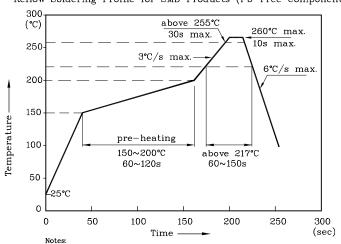
XDSB9583 V1-X Layout: Maggie L.



E SunLED www.SunLEDusa.com

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

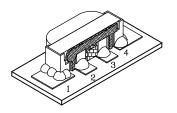
Reflow Soldering Profile for SMD Products (Pb-Free Components)



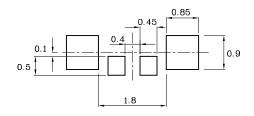
- All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
- 2. Do not apply any stress to the LED during high temperature conditions.
- 3. Maximum number of soldering passes: 2

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

2.5 x 0.7 mm Right Angle SMD Chip LED Lamp



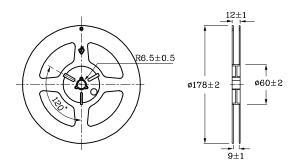
❖ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



❖ Tape Specification (Units:mm)

TAPE 4 ± 0.1 2 ± 0.1 4 ± 0.1 0.2 ± 0.1 $0.84\pm 0.$

❖ Reel Dimension (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:

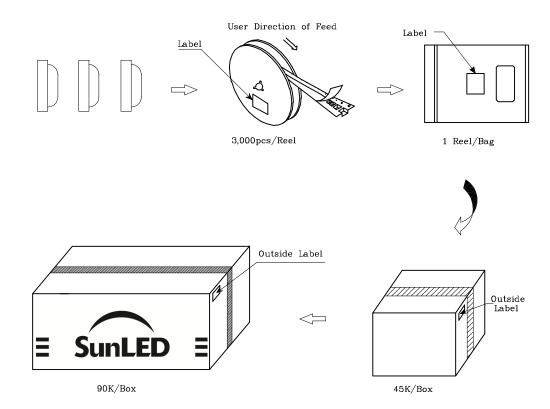
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

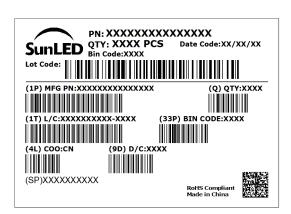
Note: Accuracy may depend on the sorting parameters.





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 performance of the product(s) should be evaluated and verified by the customer to ensure it can meet the customer's application requirements.
- 6. The contents within this document may not be altered without prior consent by SunLED.
- 7. Additional technical notes are available at https://www.SunLEDusa.com/TechnicalNotes.asp

Apr 24,2023