

## Features

- 3.5mm X 3.5mm X 1.15mm SMD LED
- Zener diode provided for ESD Protection
- IR-reflow compatible
- Ideal for accent lighting
- Standard Package: 2,000pcs / Reel
- MSL (Moisture Sensitivity Level): 2a
- RoHS compliant

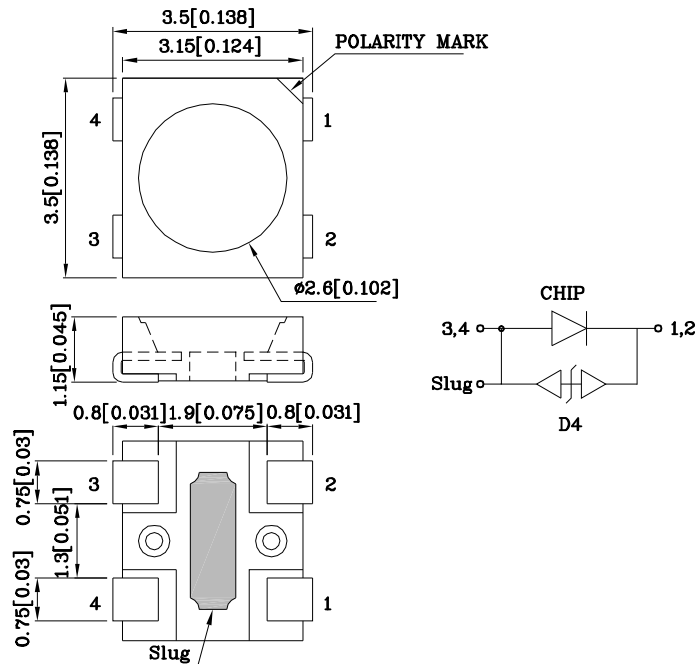
## Applications

- Signal and symbol luminaire for orientation.
- Marker lights (e.g. steps, exit ways, etc).
- Decorative and entertainment lighting.
- Commercial and residential lighting.
- Automotive interior lighting.



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

## Package Schematics



### Notes:

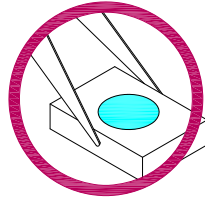
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$  (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

## Handling Precautions

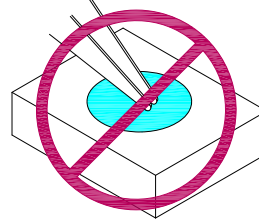
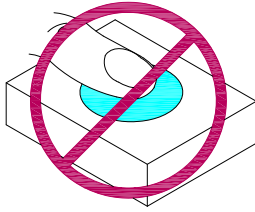
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might lead to damage and premature failure of the LED.

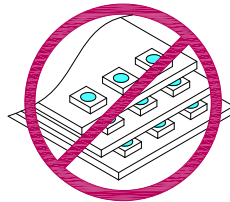
1. Handle the component along the side surfaces by using forceps or appropriate tools.



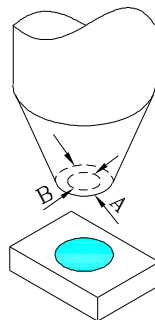
2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



3. Do not stack together assembled PCBs containing exposed LEDs. Impact may scratch the silicone lens or damage the internal circuitry.



- 4.1. The inner diameter of the SMD pickup nozzle should not exceed the size of the LED to prevent air leaks.
- 4.2. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
- 4.3. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.



5. As silicone encapsulation is permeable to gases, some corrosive substances such as H<sub>2</sub>S might corrode silver plating of leadframe. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.

### Selection Guide

| Part Number | Emitting Color | Emitting Material | Lens-color  | Luminous Intensity<br>CIE127-2007*<br>(I <sub>F</sub> =150mA)[2]<br>cd |       | Luminous Flux<br>CIE127-2007*<br>(I <sub>F</sub> =150mA)[2]<br>lm |       | Viewing Angle<br>2 θ 1/2 [1] |
|-------------|----------------|-------------------|-------------|--|-------|---|-------|------------------------------|
|             |                |                   |             | min.   | typ.  | min.  | typ.  |                              |
| XZMYLA92S-4 | Yellow         | AlGaInP           | Water Clear | 1.6*   | 2.69* | 10*   | 13.7* | 120°                         |

Notes:

- θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
  - Luminous intensity / luminous flux: +/-15%.
  - LEDs are binned according to their luminous flux.
- \* Luminous intensity / luminous flux value is in accordance with CIE127-2007 standards.

### Absolute Maximum Ratings at TA=25°C

| Parameter   | Symbol              | Value     | Unit |
|---|---------------------|-----------|------|
| Power Dissipation                                 | P <sub>D</sub>      | 495       | mW   |
| Junction Temperature [1]                          | T <sub>J</sub>      | 110       | °C   |
| Operating Temperature                             | T <sub>op</sub>     | -40 ~ +85 | °C   |
| Storage Temperature                               | T <sub>stg</sub>    | -40 ~ +85 | °C   |
| Reverse Voltage                                   | V <sub>R</sub>      | 5         | V    |
| DC Forward Current [1]                            | I <sub>F</sub>      | 150       | mA   |
| Peak Forward Current [2]                          | I <sub>FM</sub>     | 270       | mA   |
| Thermal Resistance [1]<br>(Junction/ambient)      | R <sub>th j-a</sub> | 210       | °C/W |
| Thermal Resistance [1]<br>(Junction/solder point) | R <sub>th j-s</sub> | 70        | °C/W |
| Electrostatic Discharge Threshold (HBM)           |                     | 8000      | V    |

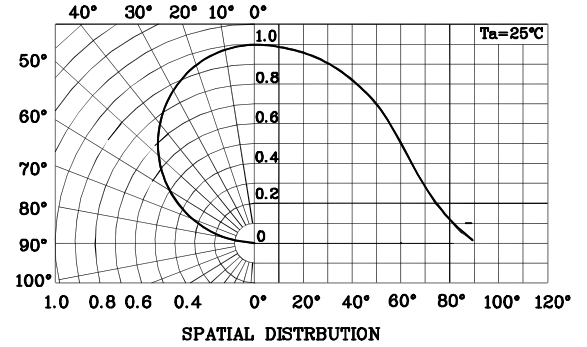
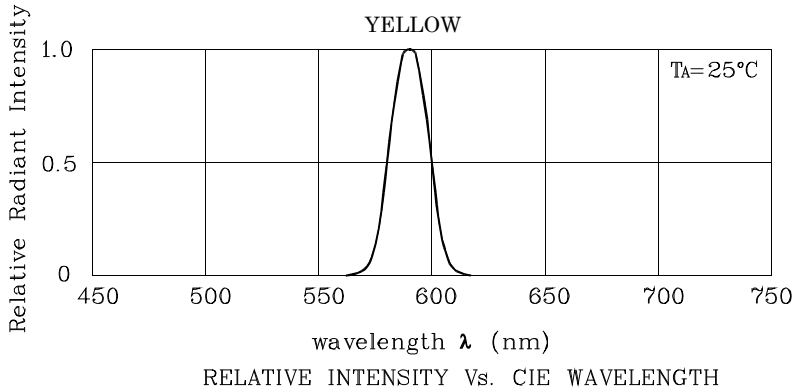
- Notes:
- Results from mounting on PC board FR4(pad size ≥ 70mm<sup>2</sup>), mounted on pc board-metal core PCB is recommend for lowest thermal Resistance.
  - 1/10 Duty Cycle, 0.1ms Pulse Width.

### Electrical / Optical Characteristics at TA = 25°C

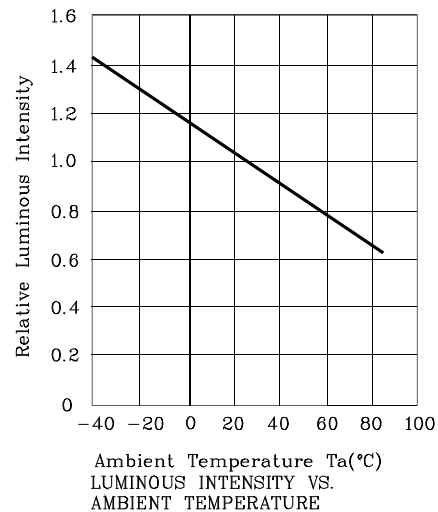
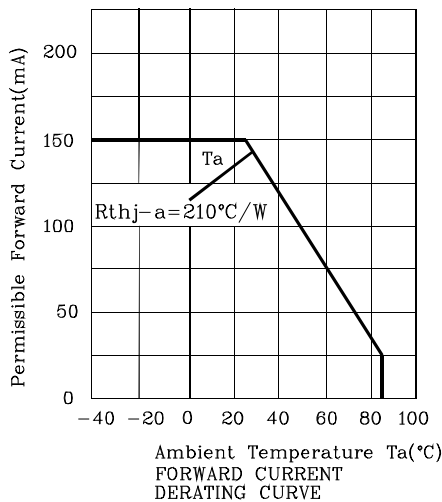
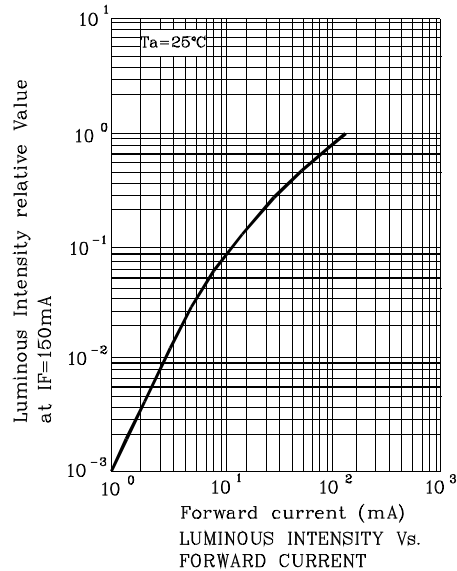
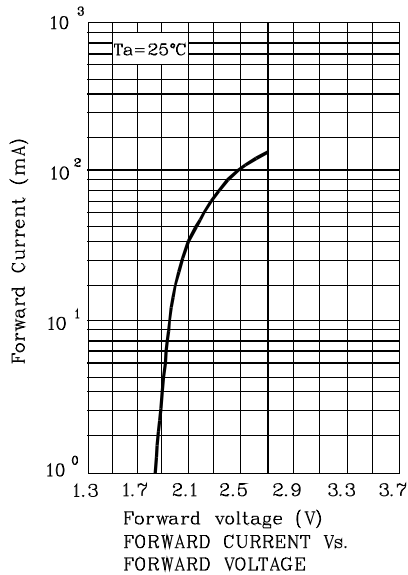
| Parameter   | Symbol               | Value | Unit  |
|---|----------------------|-------|-------|
| Wavelength at peak emission CIE127-2007* I <sub>F</sub> =150mA [Typ.]                           | λ <sub>peak</sub>    | 590*  | nm    |
| Dominant Wavelength CIE127-2007* I <sub>F</sub> =150mA [Typ.]                                   | λ <sub>dom</sub> [1] | 590*  | nm    |
| Spectral Line Half-width I <sub>F</sub> =150mA [Typ.]   | Δλ                   | 20    | nm    |
| Forward Voltage I <sub>F</sub> =150mA [Min.]  | V <sub>F</sub> [2]   | 2.2   | V     |
| Forward Voltage I <sub>F</sub> =150mA [Typ.]  |                      | 2.7   |       |
| Forward Voltage I <sub>F</sub> =150mA [Max.]  |                      | 3.3   |       |
| Allowable Reverse Current [Max.]  | I <sub>R</sub>       | 85    | mA    |
| Temperature coefficient of λ <sub>peak</sub><br>I <sub>F</sub> =150mA, -10°C ≤ T ≤ 100°C [Typ.] | TCλ <sub>peak</sub>  | 0.13  | nm/°C |
| Temperature coefficient of λ <sub>dom</sub><br>I <sub>F</sub> =150mA, -10°C ≤ T ≤ 100°C [Typ.]  | TCλ <sub>dom</sub>   | 0.10  | nm/°C |
| Temperature coefficient of V <sub>F</sub><br>I <sub>F</sub> =150mA, -10°C ≤ T ≤ 100°C [Typ.]    | TCV                  | -1.9  | mV/°C |

Notes:

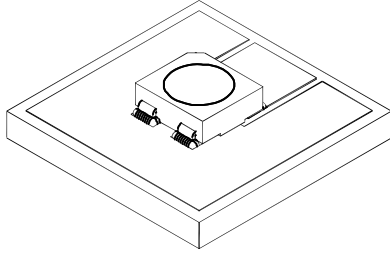
- Wavelength: +/-1nm.
  - Forward Voltage: +/-0.1V.
- \* Wavelength is in accordance with CIE127-2007 standards.  
Nov 15,2013



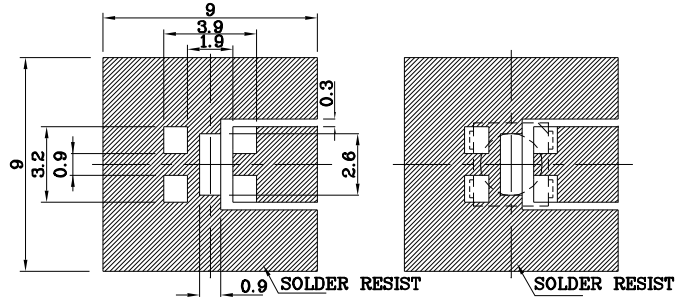
❖ MYLA



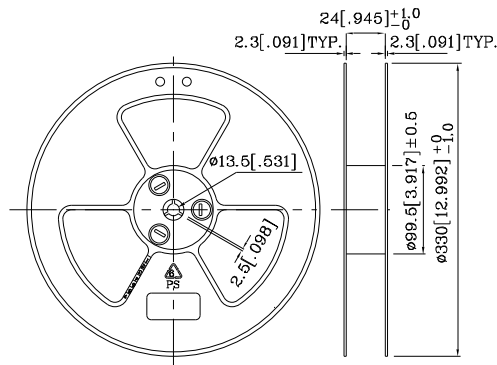
❖ The device has a single mounting surface.  
The device must be mounted according to the specifications.



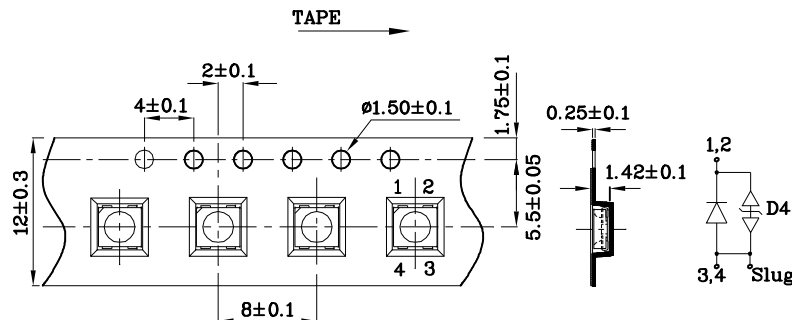
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance:  $\pm 0.1$ )



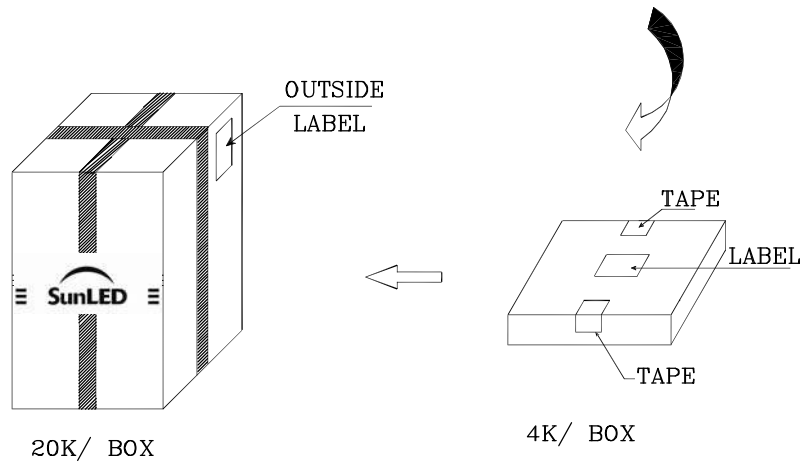
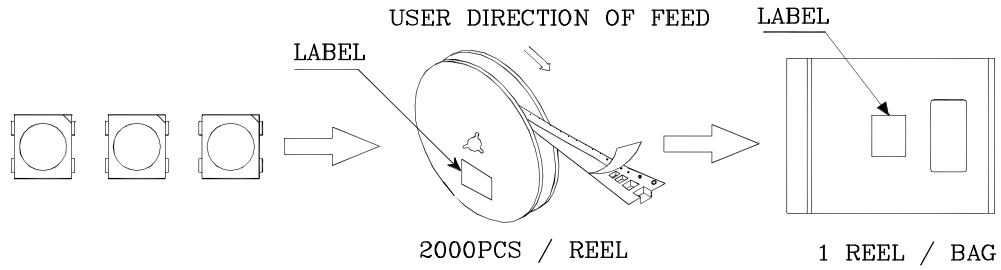
❖ Reel Dimension


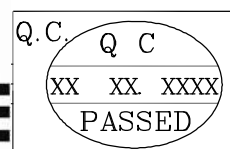



❖ Tape Specification (Units : mm)



**PACKING & LABEL SPECIFICATIONS**



|  |           |   |
|--|-----------|---|
|                                   |           |  |
| P/NO : XZxxx92x  |           |   |
| QTY : 2000 pcs   | CODE: XXX |   |
| S/N : XX   |           |   |
| LOT NO :   |           |   |
| <br>XXXXXXXXXXXXXXXXXXXXXXXXXXXX |           |   |
| RoHS Compliant   |           |   |

**TERMS OF USE**

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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.
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