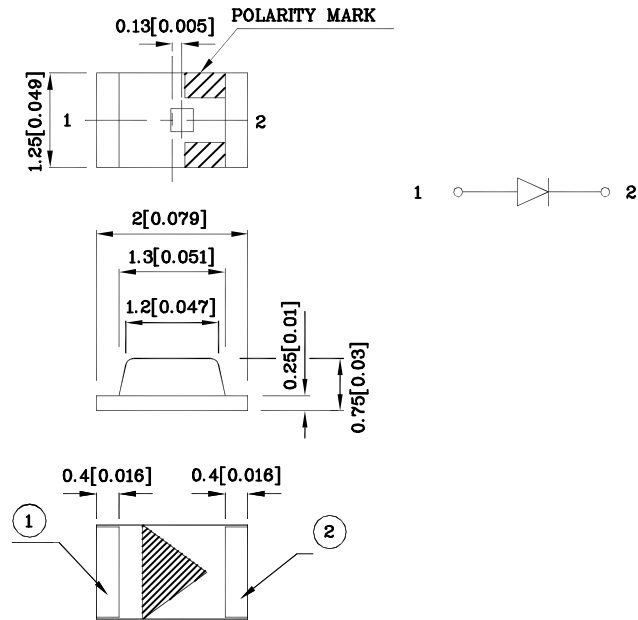


Features

- 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



Package Schematics



Notes:

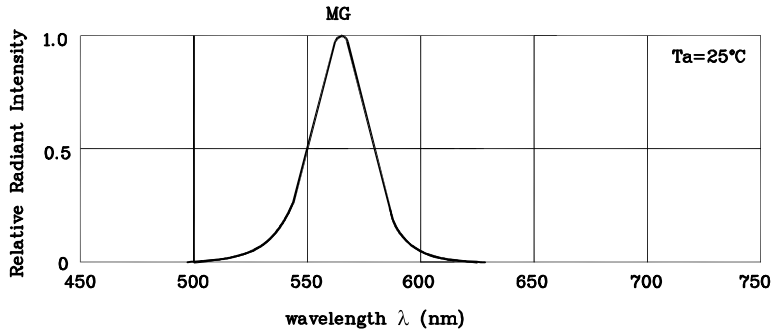
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.1(0.004)$ unless otherwise noted.
3. Specifications are subject to change without notice.

| Absolute Maximum Ratings ($T_A=25^\circ\text{C}$) | | MG (GaP) | Unit |
|--|-----------|-------------|------|
| Reverse Voltage | V_R | 5 | V |
| Forward Current | I_F | 25 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i_{FS} | 140 | mA |
| Power Dissipation | P_D | 62.5 | mW |
| Operating Temperature | T_A | -40 ~ +85 | °C |
| Storage Temperature | T_{stg} | -40 ~ +85 | |

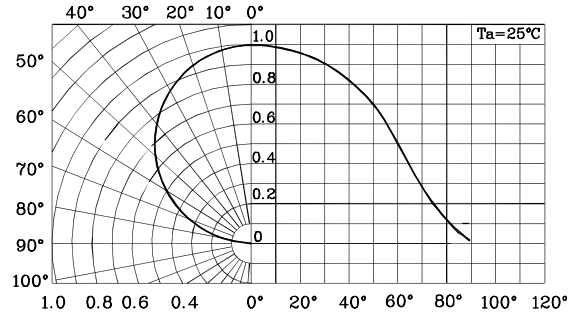
| Operating Characteristics ($T_A=25^\circ\text{C}$) | | MG (GaP) | Unit |
|--|-----------------|-------------|---------------|
| Forward Voltage (Typ.) ($I_F=20\text{mA}$) | V_F | 2.2 | V |
| Forward Voltage (Max.) ($I_F=20\text{mA}$) | V_F | 2.5 | V |
| Reverse Current (Max.) ($V_R=5\text{V}$) | I_R | 10 | μA |
| Wavelength of Peak Emission CIE127-2007*(Typ.) ($I_F=20\text{mA}$) | λ_P | 565* | nm |
| Wavelength of Dominant Emission CIE127-2007*(Typ.) ($I_F=20\text{mA}$) | λ_D | 568* | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$) | $\Delta\lambda$ | 30 | nm |
| Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$) | C | 15 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* ($I_F=20\text{mA}$) mcd | | Wavelength CIE127-2007* nm λ_P | Viewing Angle 2 θ 1/2 |
|-------------|----------------|-------------------|-------------|--|------|---|---------------------------------|
| | | | | min. | typ. | | |
| XZMG54W-1 | Green | GaP | Water Clear | 5* | 11* | 565* | 120° |

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

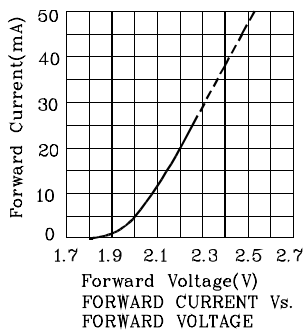


RELATIVE INTENSITY Vs. CIE WAVELENGTH

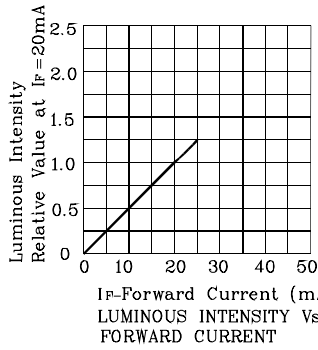


SPATIAL DISTRIBUTION

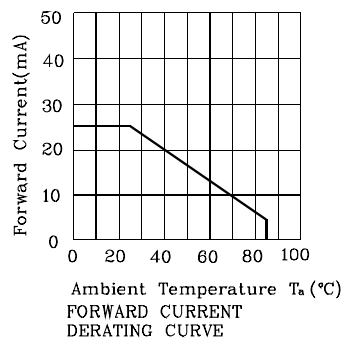
❖ MG



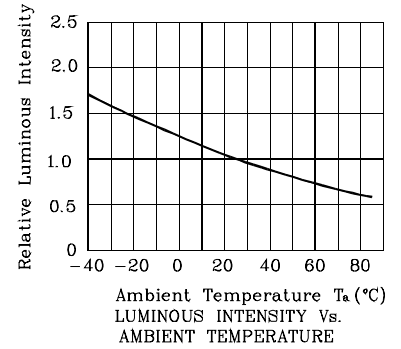
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



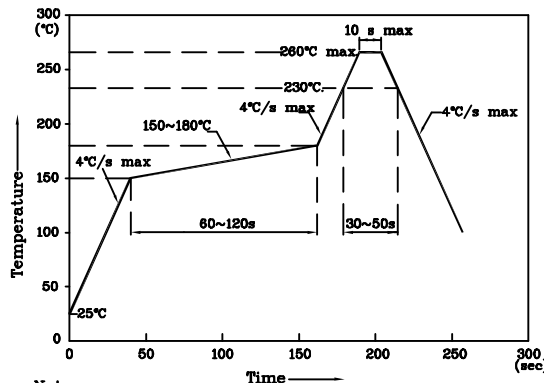
FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

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

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

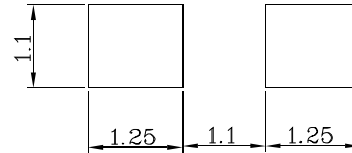
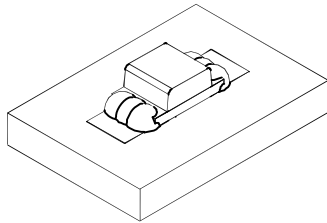


- Notes:
1. Maximum soldering temperature should not exceed 280°C
 2. Recommended reflow temperature: 145°C-260°C
 3. Do not put stress to the epoxy resin during high temperatures conditions

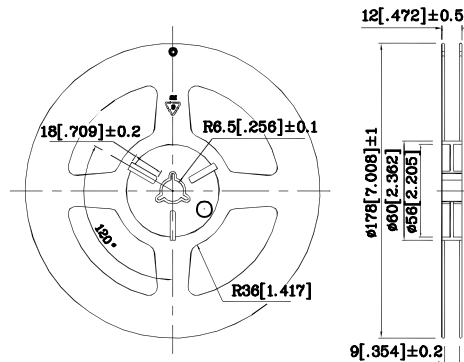


❖ The device has a single mounting surface.
The device must be mounted according to the specifications.

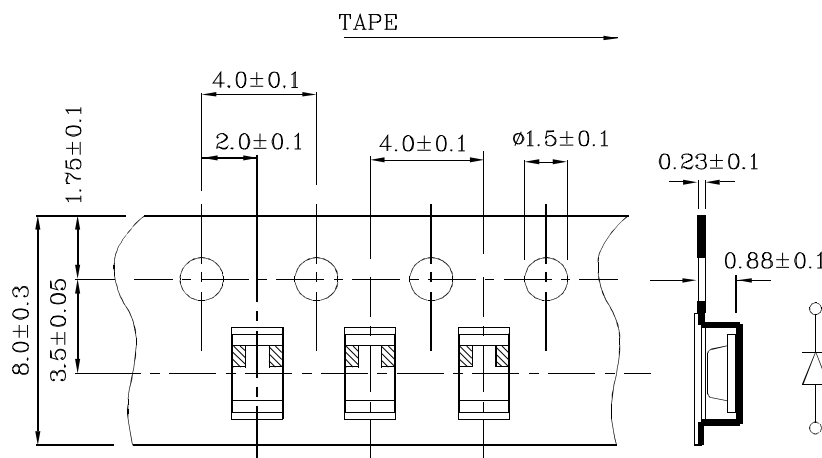
❖ Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units : mm)



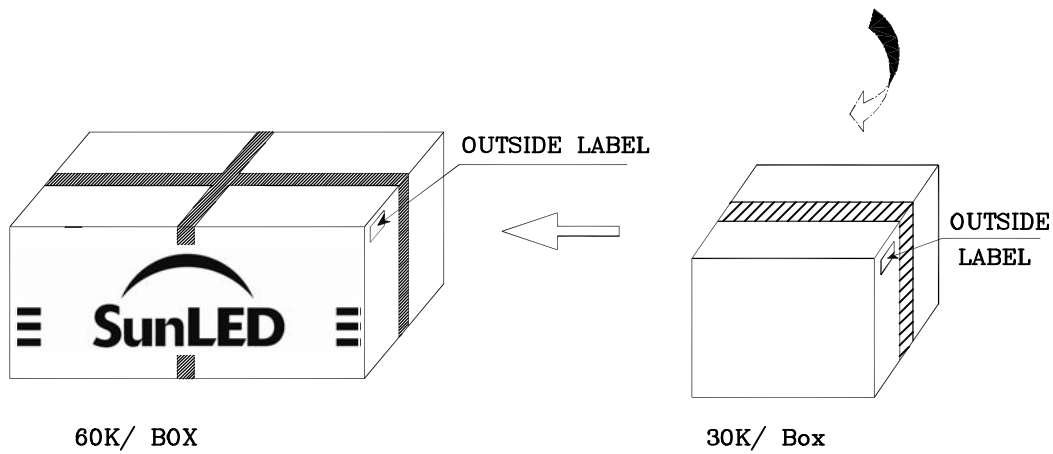
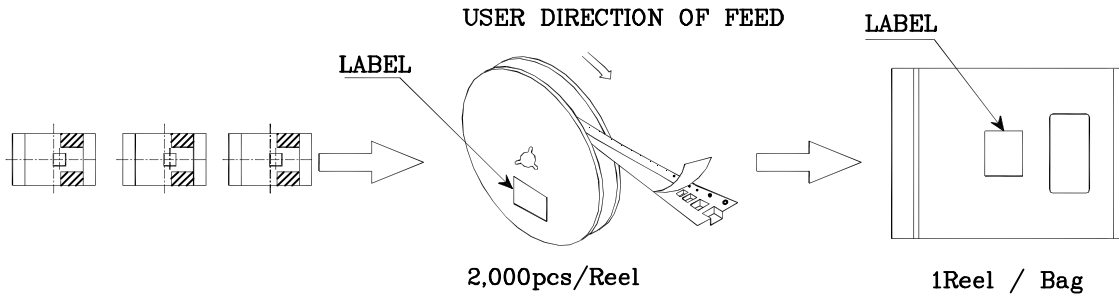
Remarks:


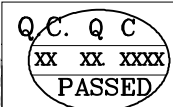

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: ± 1 nm
2. Luminous intensity / luminous flux: $\pm 15\%$
3. Forward Voltage: ± 0.1 V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS



| | | |
|--|--|--|
|  | |  |
| P/NO : XZxxx54x | | |
| QTY : 2,000 pcs | | CODE: XXX |
| S/N : XX | | |
| LOT NO: | | |
|  xxxxxxxxxxxxxxxxxxxxxxxxxxxx | | |
| RoHS Compliant | | |

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.
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6. Additional technical notes are available at <http://www.SunLEDusa.com/TechnicalNotes.asp>