

1.6 X 0.8 mm SMD CHIP LED LAMP

### **Features**

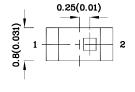
- $\bullet$  Ideal for indication light on hand held products
- Long life and robust package
- Variety of lens types and color choices available
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- RoHS compliant

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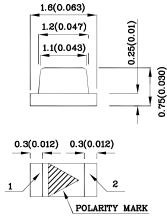




### Package Schematics







#### 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 <sub>A</sub> =25°C)	MG (GaP)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V	
Forward Current	$I_{\mathrm{F}}$	25	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	140	mA mW	
Power Dissipation	$P_{D}$	62.5		
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85		

Operating Characteristics (T <sub>A</sub> =25°C)	MG (GaP)	Unit		
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.2	V	
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	V	
Reverse Current (Max.) $(V_R=5V)$	${ m I}_{ m R}$	10	uA	
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λΡ	565*	nm	
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	568*	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$\triangle \lambda$	30	nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	15	pF	

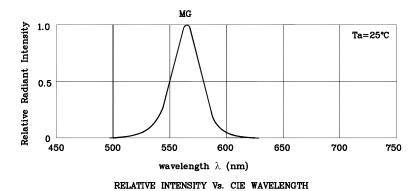
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I <sub>F</sub> =20mA) mcd	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min. typ.		

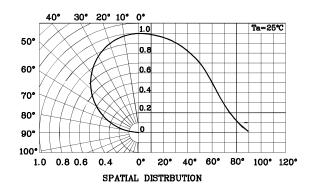
				min.	typ.		
XZMG53W-1	Green	GaP	Water Clear	5*	11*	565*	120°

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

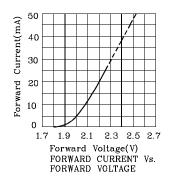


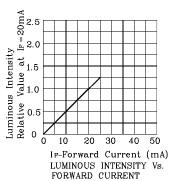


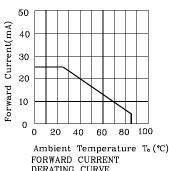


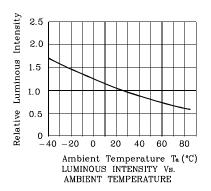


### **♦** MG



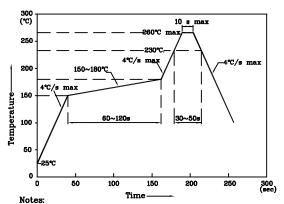






## LED is recommended for reflow soldering and soldering profile is shown below.

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



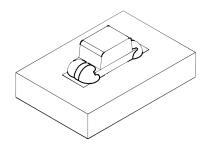
- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions



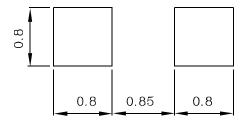


# ❖ The device has a single mounting surface. The device must be mounted according to the specifications.

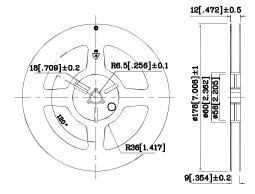
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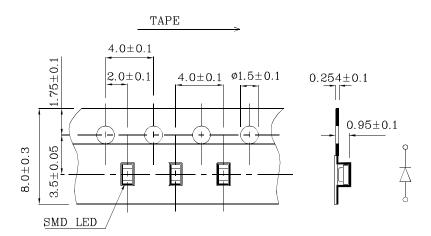
### **♦** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



### **❖** 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:

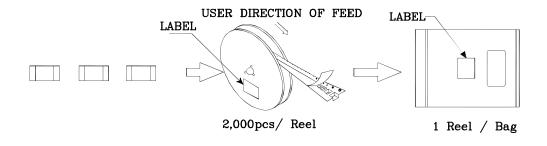
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

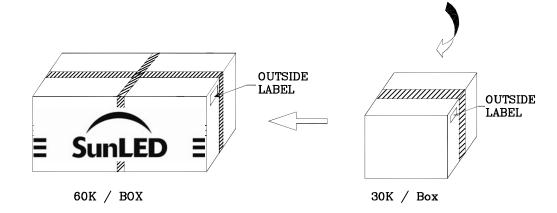
Note: Accuracy may depend on the sorting parameters.  $\,$ 

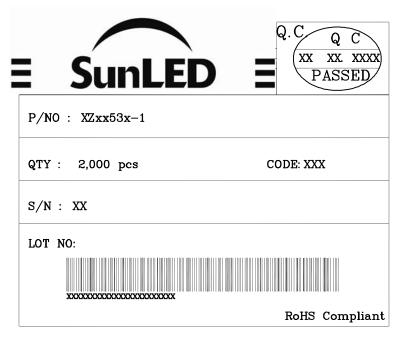




### PACKING & LABEL SPECIFICATIONS







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