

1.6x0.8mm SMD CHIP LED LAMP

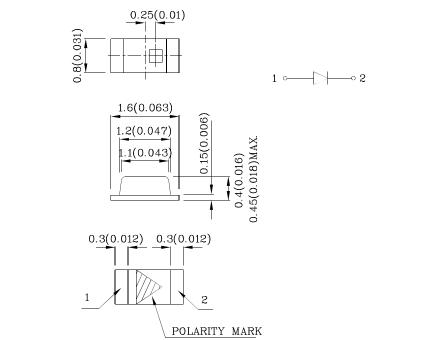
### **Features**

- 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





# 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)	VG (AlGaInP)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V	
Forward Current	$I_{\mathrm{F}}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA	
Power Dissipation	$P_D$	75	mW	
Operating Temperature	$T_{A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	C	

Operating Characteristics ( $T_A$ =25°C)	VG (AlGaInP)	Unit	
Forward Voltage (Typ.) ( $I_F$ =20mA)	$V_{\mathrm{F}}$	2.1	V
Forward Voltage (Max.) ( $I_F$ =20mA)	$V_{\mathrm{F}}$	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) $(I_F=20\text{mA})$	λΡ	574*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	570*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$\triangle \lambda$	20	nm
Capacitance (Typ.) $(V_F=0V, f=1MHz)$	С	15	pF

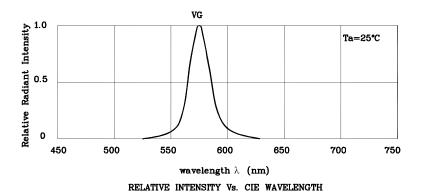
Part Number	Emitting Color	Emitting Material	Lens-color	CIE127	Intensity 7-2007* nA) mcd	Wavelength CIE127-2007* λP nm	Viewing Angle 20 1/2
				min.	typ.		
XZVG53W-3	Green	AlGaInP	Water Clear	20*	49*	574*	120°

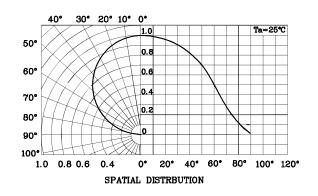
 $<sup>^{\</sup>star}$ Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

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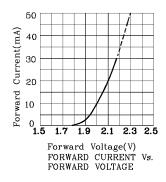


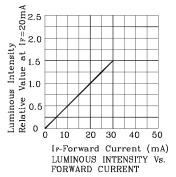


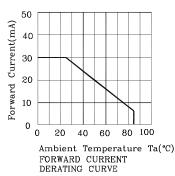


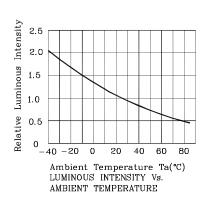


## ❖ VG



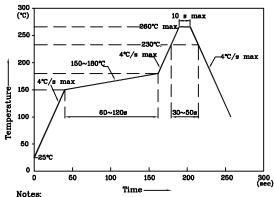






# LED is recommended for reflow soldering and soldering profile is shown below.

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

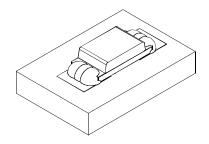


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

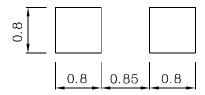




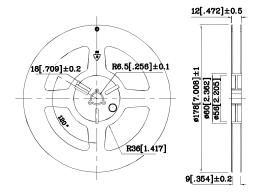
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



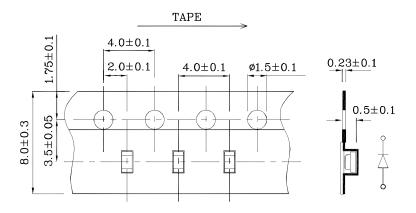
❖ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



## **❖** 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

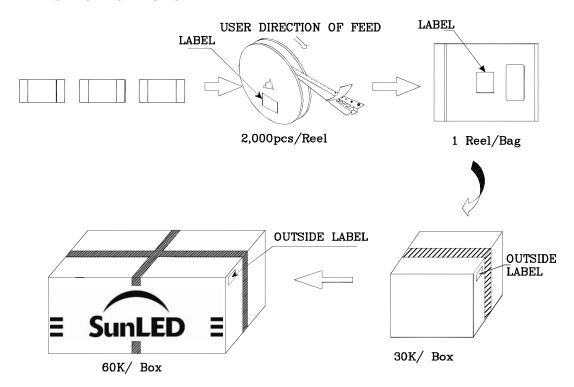
Note: Accuracy may depend on the sorting parameters.

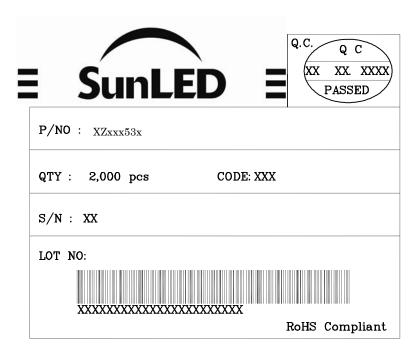


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#### PACKING & LABEL SPECIFICATIONS

www.SunLEDusa.com





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- $6. \ Additional\ technical\ notes\ are\ available\ at\ \underline{http://www.SunLEDusa.com/TechnicalNotes.asp}$

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