

 $2.0 \times 1.25$ mm SMD Chip LED Lamp

#### **Features**

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- Halogen-free
- RoHS compliant

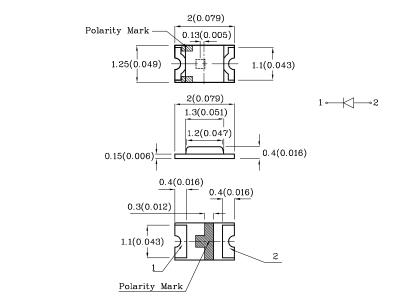






# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

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

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 <sub>A</sub> =25°C)	Green (AlGaInP)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.1	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_{\mathrm{R}}$	10	μА
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λР	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)	Δλ	20	nm
Capacitance (Typ.) $(V_F=0V, f=1MHz)$		15	pF

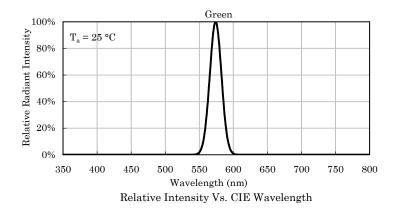
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous CIE127 (I <sub>F</sub> =20 mo	7-2007* 0mA)	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZVG54W-4	Green	AlGaInP	Water Clear	20*	49*	574*	140°

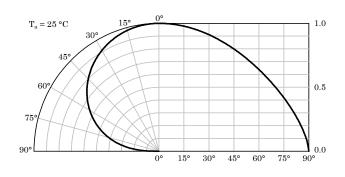
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

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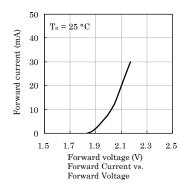


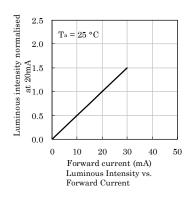


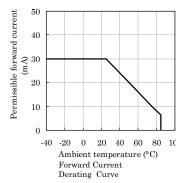


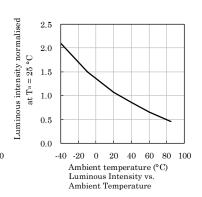
Spatial Distribution

## **❖** Green



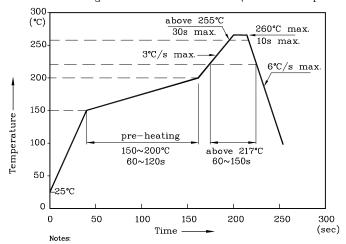






# LED is recommended for reflow soldering and soldering profile is shown below.

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

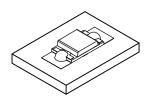


- 1. All temperatures refer to the center of the package,
- measured on the package body surface facing up during reflow.
- 2. Do not apply any stress to the LED during high temperature conditions.
  3. Maximum number of soldering passes: 2

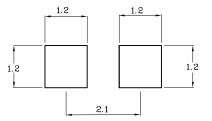


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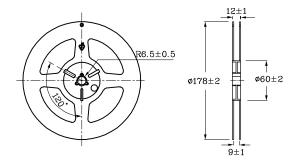
♦ The device has a single mounting surface. The device must be mounted according to the specifications.



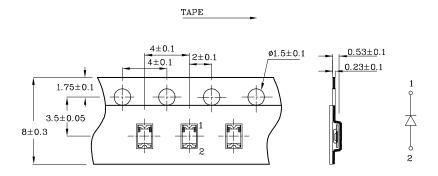
♦ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



❖ Reel Dimension (Units:mm)



❖ 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:

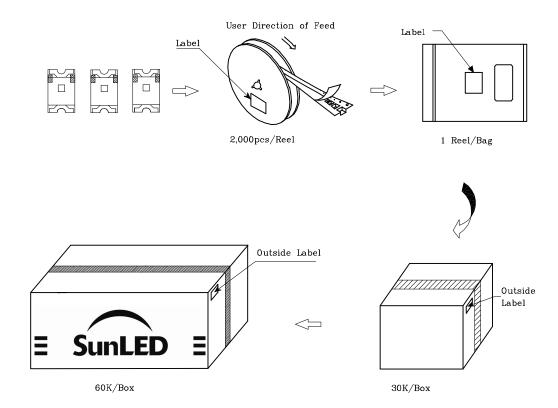
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

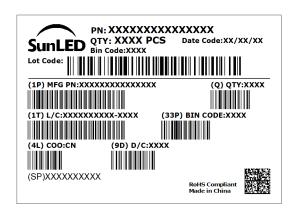
Note: Accuracy may depend on the sorting parameters.





## PACKING & LABEL SPECIFICATIONS





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XDSA6830 V7-Z Layout: Maggie L.