

 $1.0 \times 0.5$  mm SMD Chip LED Lamp

#### **Features**

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

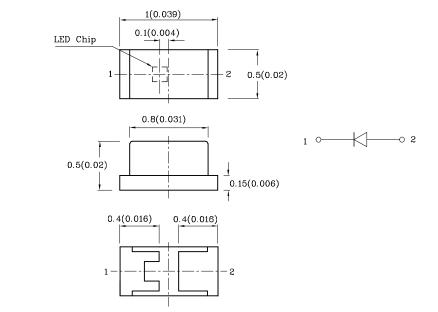






# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

## 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)	Orange (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	ifs	195	mA
Power Dissipation	$P_{\mathrm{D}}$	75	mW
Operating Temperature	$T_{\rm A}$	-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)	Orange (AlGaInP)	Unit	
Forward Voltage (Typ.) $V_F$ (I <sub>F</sub> =20mA)		2.1	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$ m V_{F}$	2.5	V
Reverse Current (Max.) $(V_R=5V)$	${ m I}_{ m R}$	10	μA
Vavelength of Peak Emission CIE127-2007* (Typ.) $\lambda P$ $I_F$ =20mA)		610*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	605*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	29	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	15	pF

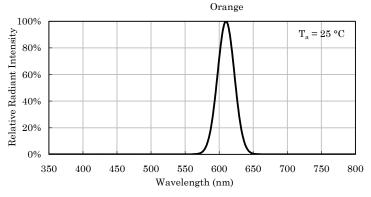
 Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I <sub>F</sub> =20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZMOK68W-2	Orange	AlGaInP	Water Clear	120 80*	218 148*	610*	120°

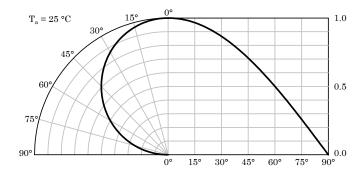
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

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 $1.0 \times 0.5 \text{ mm}$  SMD Chip LED Lamp



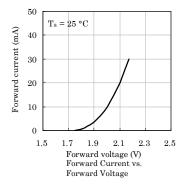


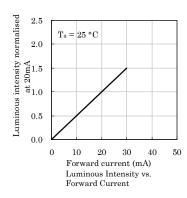


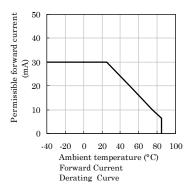
Relative Intensity Vs. CIE Wavelength

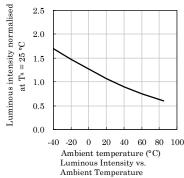
Spatial Distribution

# **❖** Orange



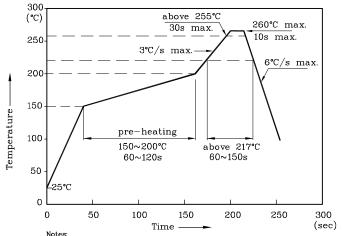






# LED is recommended for reflow soldering and soldering profile is shown below.

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



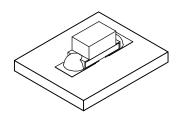
- 1. All temperatures refer to the center of the package,
- measured on the package body surface facing up during reflow.

  2. Do not apply any stress to the LED during high temperature conditions.
- 3. Maximum number of soldering passes: 2

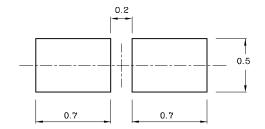




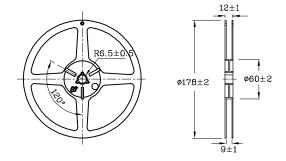
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



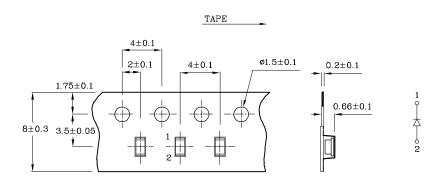
**❖** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



❖ 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:

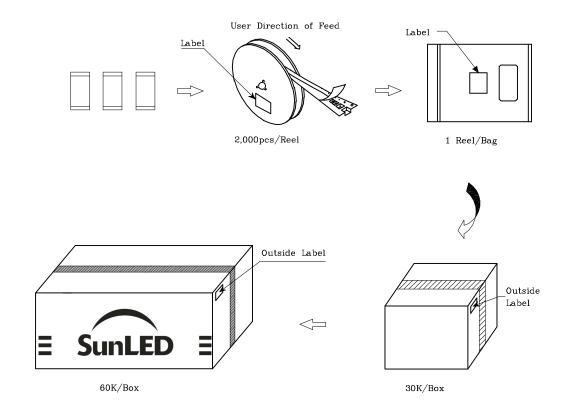
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

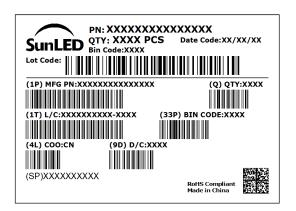
Note: Accuracy may depend on the sorting parameters.





### PACKING & LABEL SPECIFICATIONS





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