

### Part Number: XZMDK60W

3.0mmx1.5mm SMD CHIP LED LAMP

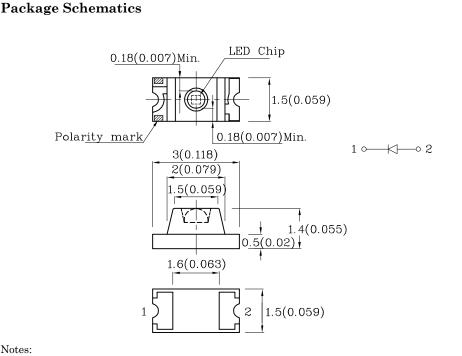
### Features

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





ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



1. All dimensions are in millimeters (inches).

2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.

3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		Red (AlGaInP)	Unit	
Reverse Voltage	$V_{R}$	5	V	
Forward Current	$I_{\rm F}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	185	mA	
Power Dissipation	$P_{D}$	75	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	-C	

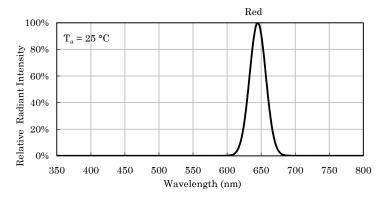
A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

Operating Characteristics (T <sub>A</sub> =25°C)	Red (AlGaInP)	Unit		
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	1.95	V	
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	2.5	V	
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_R$	10	uA	
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λΡ	645*	nm	
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	630*	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$ riangle\lambda$	28	nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	35	$\mathrm{pF}$	

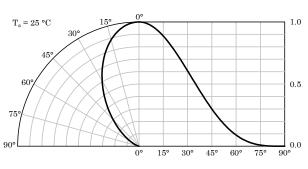
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous CIE127 (I <sub>F</sub> =20 mo	-2007* )mA)	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZMDK60W	Red	AlGaInP	Water Clear	300 120*	597 178*	645*	70°

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

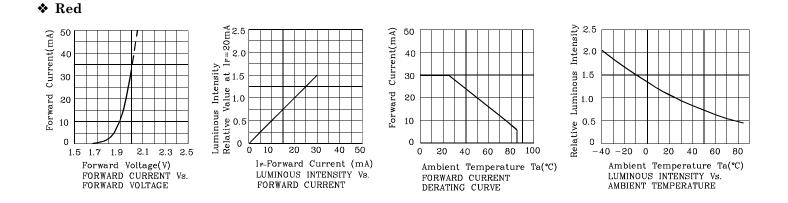




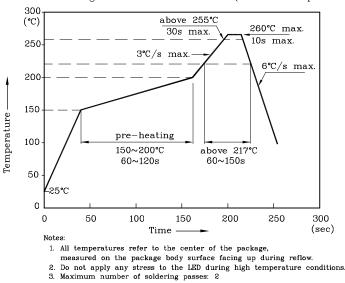
Relative Intensity Vs. CIE Wavelength



Spatial Distribution



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



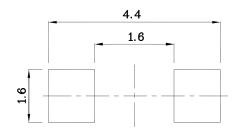
Reflow Soldering Profile for SMD Products (Pb-Free Components)

Nov 01,2018

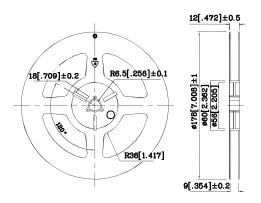


✤ The device has a single mounting surface. The device must be mounted according to the specifications.

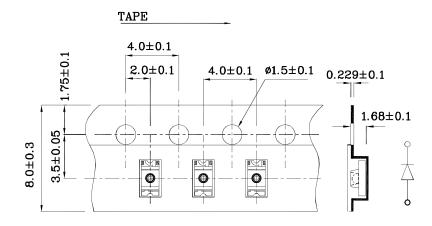
### Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



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

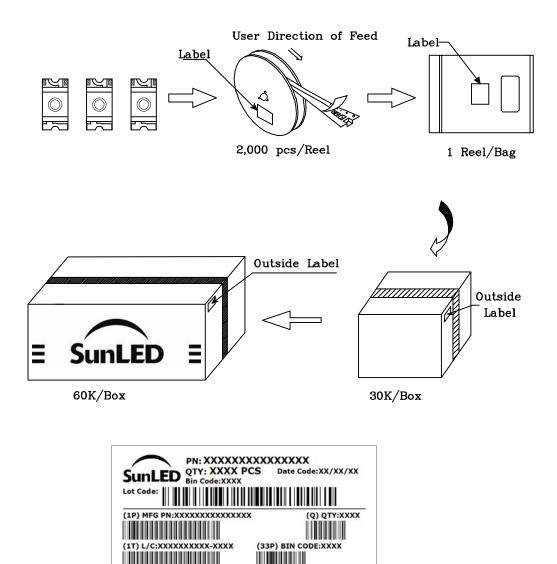
2. Luminous intensity / luminous flux: +/-15%

3. Forward Voltage: +/-0.1V  $\,$ 

Note: Accuracy may depend on the sorting parameters.



### **PACKING & LABEL SPECIFICATIONS**



1. Data presented in this document reflect statistical figures and should be treated as technical reference only.

COO:CN

(SP)XXXXXXXXXX

- 2. Contents within this document are subject to improvement and enhancement changes without notice.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet. User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.

(9D) D/C:XXXX

RoHS Complia

- 4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please
- consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life. 5. The contents within this document may not be altered without prior consent by SunLED.
- Additional technical notes are available at <u>https://www.SunLEDusa.com/TechnicalNotes.asp</u>

Nov 01,2018