

### Part Number: XZMDK56W-1

3. 0mmx1.0 mm RIGHT ANGLE SMD CHIP LED LAMP



### **Features**

• Ideal for indication light on hand held products

• Long life and robust package

• Standard Package: 2,000pcs/ Reel

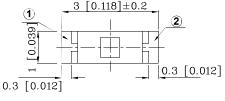
 $\bullet$  MSL (Moisture Sensitivity Level): 3

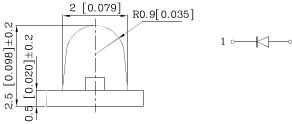
• RoHS compliant.

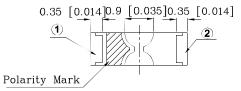




### Package Schematics







#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.15(0.006")$  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	$V_{\rm R}$	5	V	
Forward Current	$I_{\mathrm{F}}$	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)	$ m V_F$	2.5	V	
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	uA	
Wavelength of Peak Emission CIE127-2007*(Typ.) (I <sub>F</sub> =20mA)	λΡ	645*	nm	
Wavelength of Dominant Emission CIE127-2007*(Typ.) $(I_F=20\text{mA})$	λD	630*	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$\triangle \lambda$	28	nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	35	pF	

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

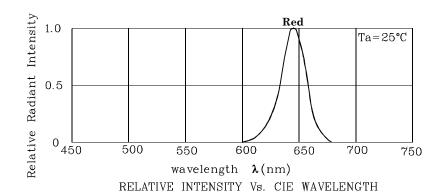
				min.	typ.		
XZMDK56W-1	Red	AlGaInP	Water Clear	500 200*	795 297*	645*	30°

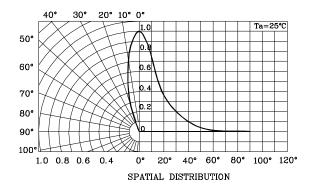
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

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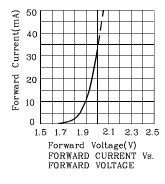


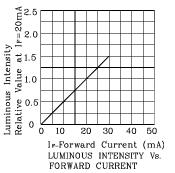
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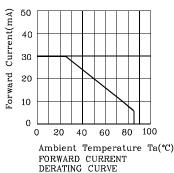


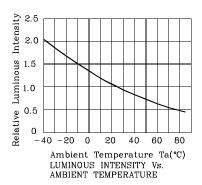


### **❖** Red



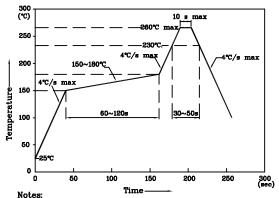






# LED is recommended for reflow soldering and soldering profile is shown below.

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

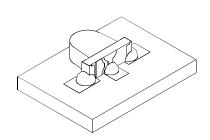


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

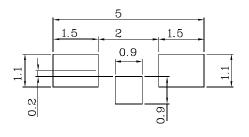


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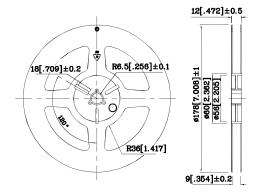
# ❖ The device has a single mounting surface. The device must be mounted according to the specifications.



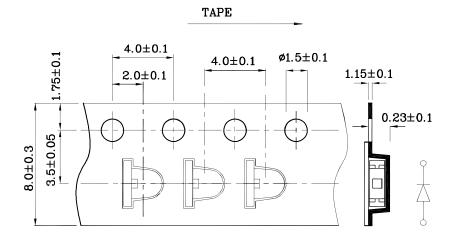
# **❖** Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



## **❖** Reel Dimension



### **❖** 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:

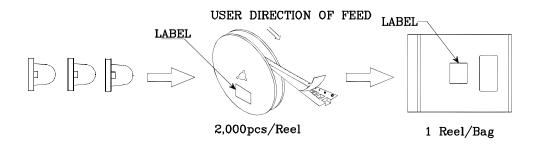
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

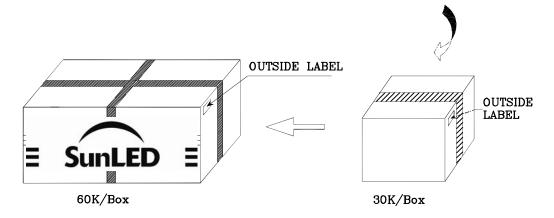
Note: Accuracy may depend on the sorting parameters.

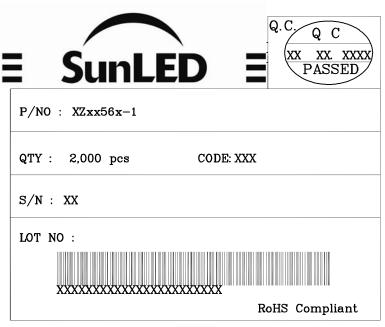


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### PACKING & LABEL SPECIFICATIONS







### TERMS OF USE

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XDSB1813 V5-X Layout: Maggie L.