

### Part Number: XZM2DG55W-1

3.2mmx1.6mm 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
- RoHS compliant





ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



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

Notes:

**Package Schematics** 

3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		Green (InGaN)	Unit	
Reverse Voltage	$V_{\rm R}$	5	V	
Forward Current	$\mathbf{I}_{\mathbf{F}}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	100	mA	
Power Dissipation	PD	120	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	$-40 \sim +85$		
Electrostatic Discharge Threshold (HBM)		450	V	

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 (InGaN)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	3.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	4	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_R$	50	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λP	520*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	525*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$ riangle \lambda$	35	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	$_{\rm pF}$

Part Number	Emitting Color	Emitting Material	Lens-color	CIE12' (I <sub>F</sub> =2	Intensity 7-2007* 0mA) cd	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZM2DG55W-1	Green	InGaN	Water Clear	500*	795*	520*	160°

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



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# 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
- 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.

Mar 15,2016



### **PACKING & LABEL SPECIFICATIONS**



### TERMS OF USE

- 1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
- 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.
- 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
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- $6. \ Additional \ technical \ notes \ are \ available \ at \ \underline{http://www.SunLEDusa.com/TechnicalNotes.asp}$