

3.8x2.0mm DOME LENS SMD CHIP LED LAMP



## **Features**

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 500pcs/ Reel
- $\bullet$  MSL (Moisture Sensitivity Level): 3
- RoHS compliant



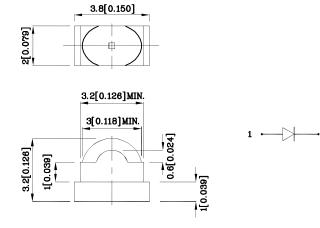


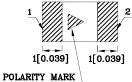


Feb 18,2014

# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

# Package Schematics





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- 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)	M2DG (InGaN)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V	
Forward Current	$I_{\mathrm{F}}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	100	mA	
Power Dissipation	$P_{D}$	120	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	C	
Electrostatic Discharge Threshold (HBM)	450	V		

Operating Characteristics (T <sub>A</sub> =25°C)		M2DG (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.) $(V_R=5V)$	$I_{\mathrm{R}}$	50	uA	
Wavelength of Peak Emission CIE127-2007*(Typ.) (I <sub>F</sub> =20mA)	λР	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)	$\triangle \lambda$	35	nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	pF	

Part Number	Emitting Color	Emitting Material	Lens-color	CIE127	0mA)	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZM2DG79W	Green	InGaN	Water Clear	1900*	2690*	520*	60°(H) 35°(V)

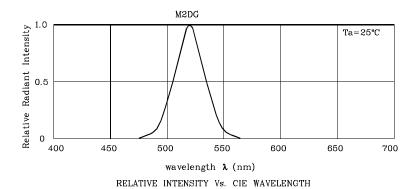
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

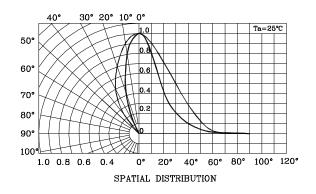
Editions intensity value and wavelength are in accordance with OTE121-2007 standards.



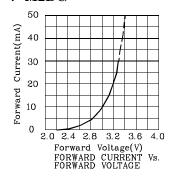


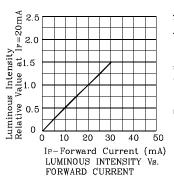


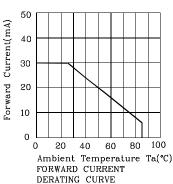


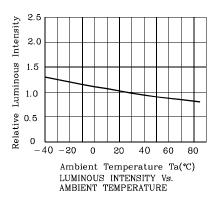


# **❖** M2DG



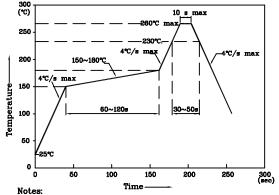






# LED is recommended for reflow soldering and soldering profile is shown below.

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

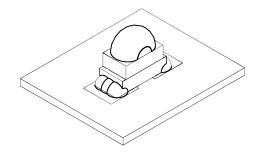


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

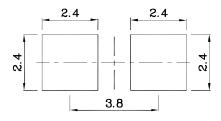




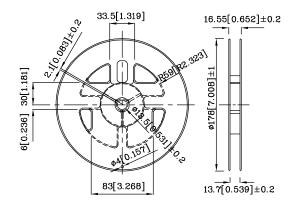
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



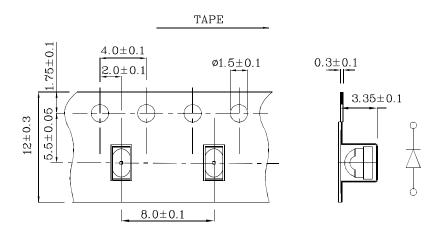
# ❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



# **❖** Reel Dimension



# **❖** Tape Specification (Units:mm)



#### Remarks:

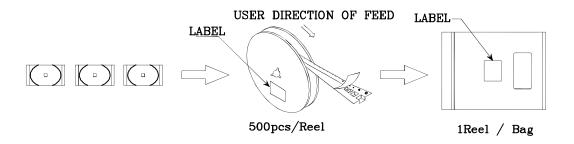
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

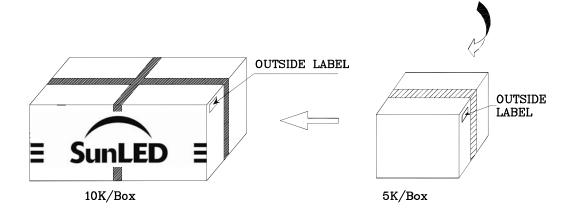
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

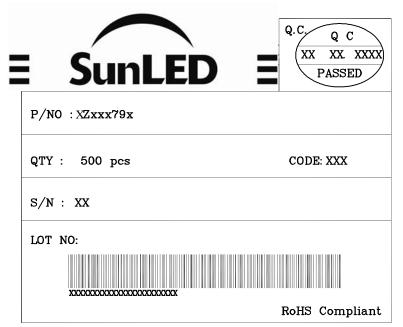
Note: Accuracy may depend on the sorting parameters.



# PACKING & LABEL SPECIFICATIONS







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