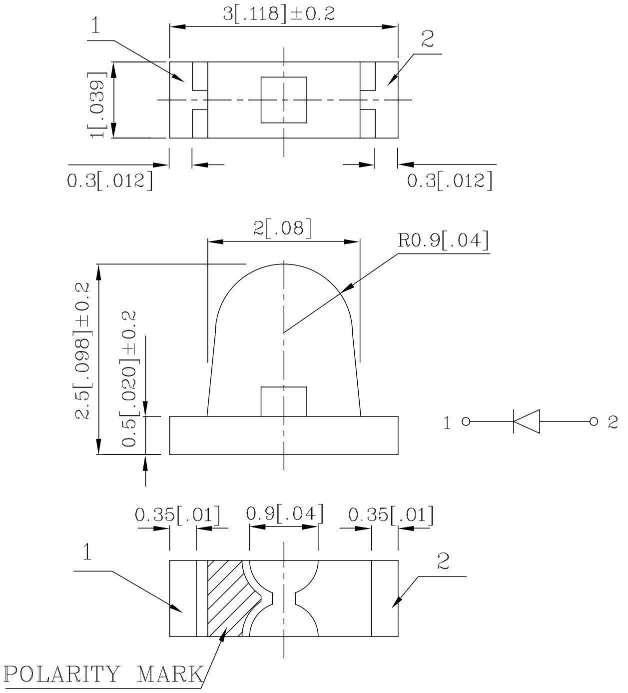
www.SunLEDusa.com

Part Number: **XZDG56W-1**

3.0 mmx1.0 mm RIGHT ANGLE SMD CHIP LED LAMP



Features

- 3.0mm x 1.0mm right angle SMT LED, 2.5mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for back light and indicator.
- Various colors and lens types available.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

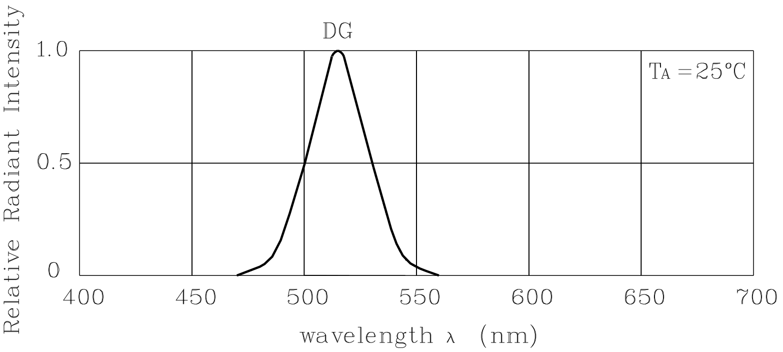
ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.15(0.006") unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T_A=25°C)		**DG (InGaN)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	150	mA
Power Dissipation	P_D	102.5	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

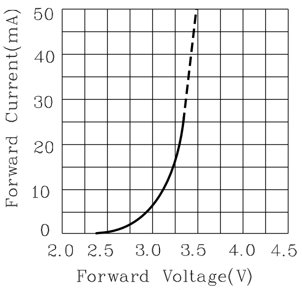
Operating Characteristics (T_A=25°C)		**DG (InGaN)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	3.3	V
Forward Voltage (Max.) (I_F=20mA)	V_F	4.1	V
Reverse Current (Max.) (V_R=5V)	I_R	50	uA
Wavelength of Peak Emission (Typ.) (I_F=20mA)	λ P	515	nm
Wavelength of Dominant Emission (Typ.) (I_F=20mA)	λ D	525	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=20mA)	Δλ	30	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	45	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min.	typ.		
XZDG56W-1	Green	InGaN	Water Clear	500	795	515	30°

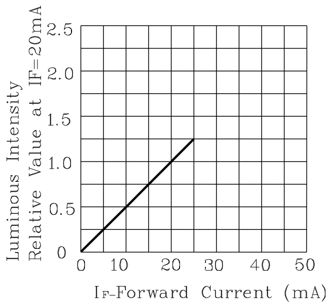


RELATIVE INTENSITY Vs. WAVELENGTH

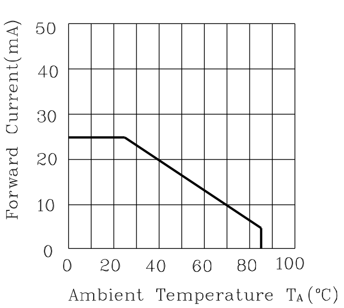
❖ DG



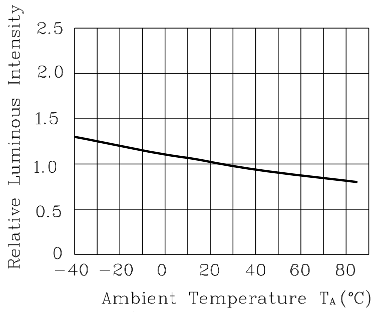
FORWARD CURRENT Vs.
FORWARD VOLTAGE



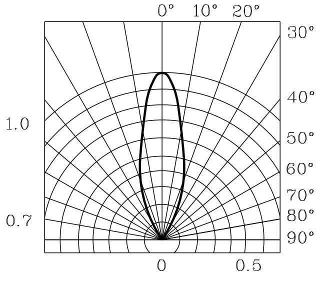
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



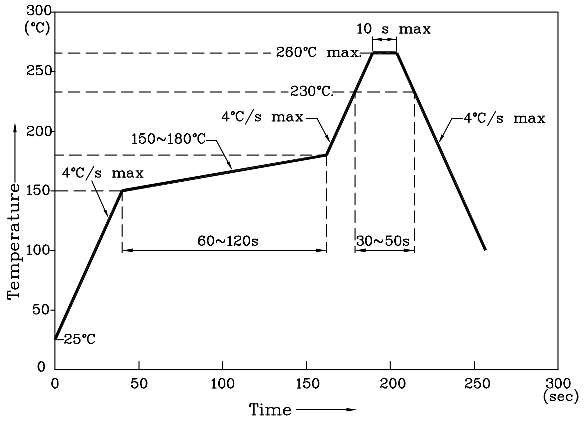
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

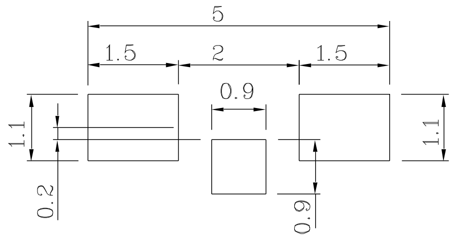
Reflow Soldering Profile For Lead-free SMT Process.



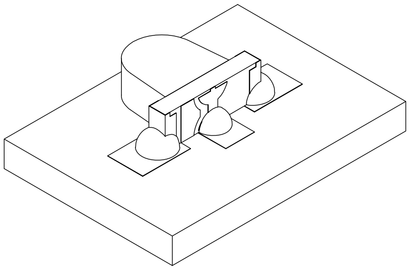
NOTES:

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.

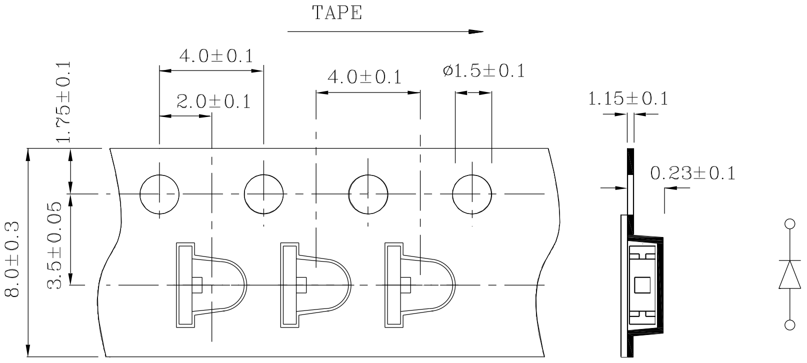
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ±0.1)



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



❖ Tape Specification (Units : mm)



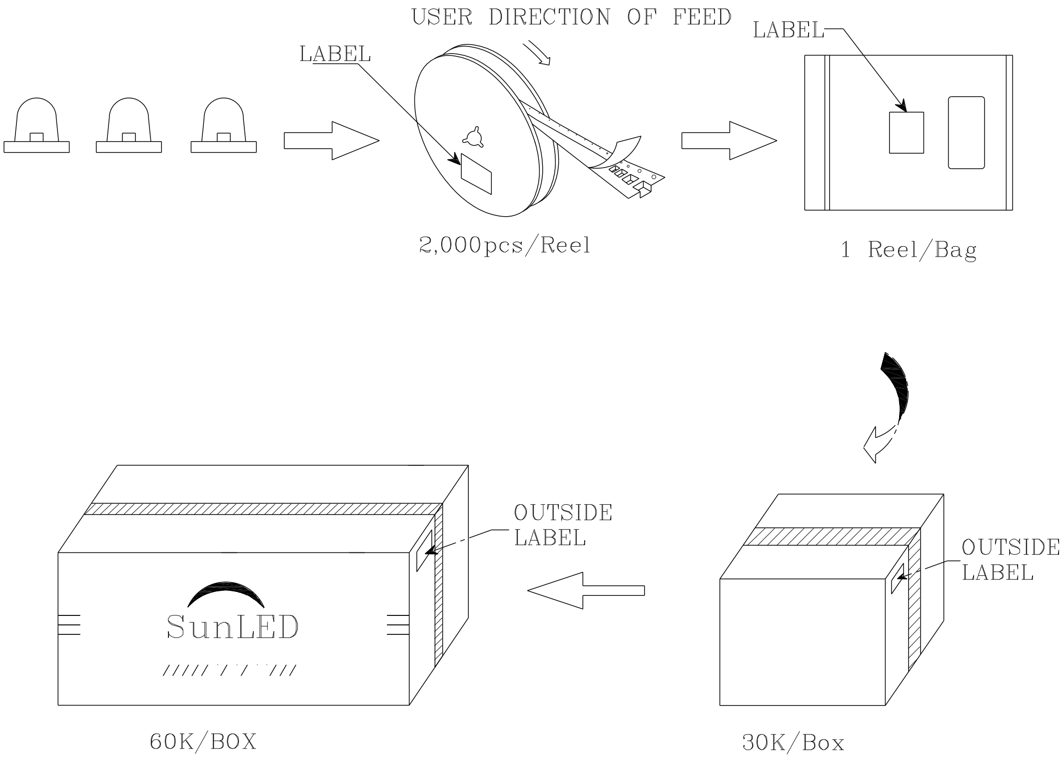
Remarks:

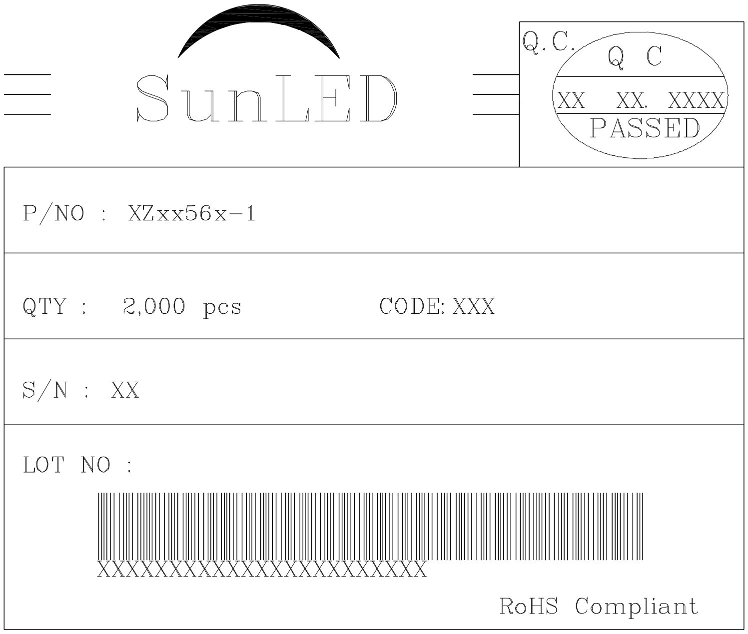
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

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 XZDG56W-1




SunLED

Q.C.
Q C
XX XX. XXXX
PASSED

P/NO : XZxx56x-1

QTY : 2,000 pcs CODE: XXX

S/N : XX

LOT NO :

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RoHS Compliant