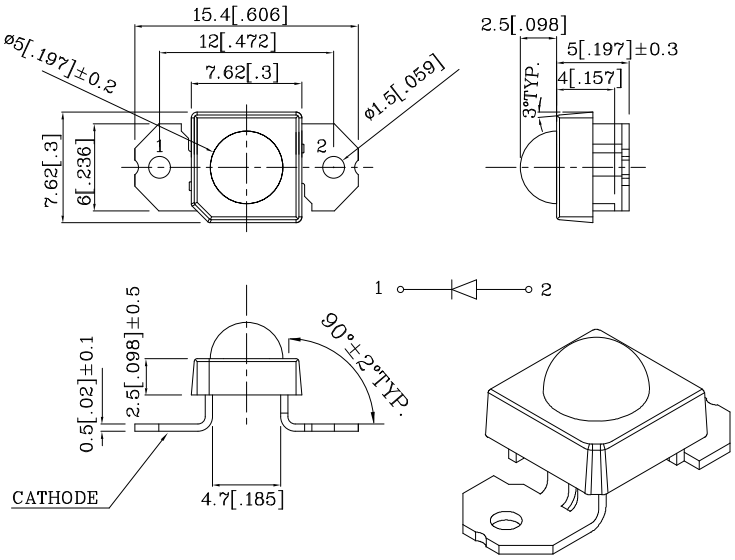
SunLED
www.SunLEDusa.com

Part Number: **XSDG120W**

SnapLED

PRELIMINARY SPEC



Features:

- ●HIGH LUMINANCE OUTPUT.
- ●DESIGN FOR HIGH CURRENT OPERATION.
- ●SOLDERLESS MOUNTING TECHNIQUE.
- ●LOW POWER CONSUMPTION.
- ●LOW THERMAL RESISTANCE.
- ●LOW PROFILE.
- ●PACKAGED IN TUBES FOR USE WITH AUTOMATIC INSERTION EQUIPMENT.
- ●RoHS COMPLIANT.

ATTENTION
OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

Benefits:

*Rugged Lighting Products.
*Electricity savings.
*Maintenance savings.
*Environmental Conformance.

Typical Applications:

*Automotive Exterior Lighting.
*Solid State Lighting and Signaling.

Absolute Maximum Ratings (TA=25°C)		**DG (AlInGaN)**	**Unit**
Reverse Voltage	VR	5	V
Forward Current	IF	30	mA
Power Dissipation	PT	126	mW
Operating Temperature	TA	-40 ~ +85	°C
Storage Temperature	Tstg	-55 ~ +85	
Electrostatic Discharge Threshold (HBM)		450	V

Notes:

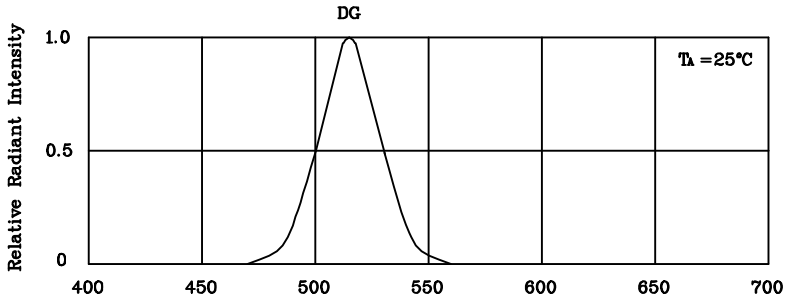
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Operating Characteristics (TA=25°C)		**DG (AlInGaN)**	**Unit**
Forward Voltage (Typ.) (IF=30mA)	VF	3.4	V
Forward Voltage (Max.) (IF=30mA)	VF	4.2	V
Reverse Current (Max.) (VR=5V)	IR	10	uA
Wavelength of Peak Emission (Typ.) (IF=30mA)	λ P	515	nm
Wavelength of Dominant Emission (Typ.) (IF=30mA)	λ D	525	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=30mA)	Δλ	30	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	C	45	pF
Thermal Resistance (Typ.)	Rθj-pin	150	˚C/W

1.The dominant wavelength is derived from the CIE Chromaticity Diagram and represents the perceived color of the device.

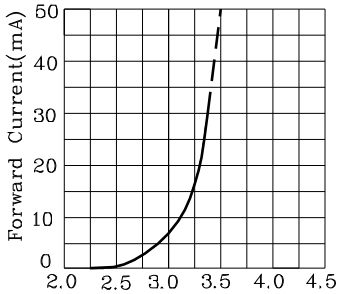
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=30mA)[1] mcd		Luminous Flux (IF=30mA) mlm	Wavelength nm λ P	Viewing Angle[2] 2 θ 1/2
				min.	typ.	typ.		
XSDG120W	Green	AlInGaN	Water Clear	900	2090	3500	515	85°

1.LUMINOUS INTENSITY IS MEASURED WITH AN INTEGRATING SPHERE AFTER THE DEVICE HAS STABILIZED.
2. θ 1/2 IS THE ANGLE FROM OPTICAL CENTERLINE WHERE THE LUMINOUS INTENSITY IS 1/2 THE OPTICAL CENTERLINE VALUE.

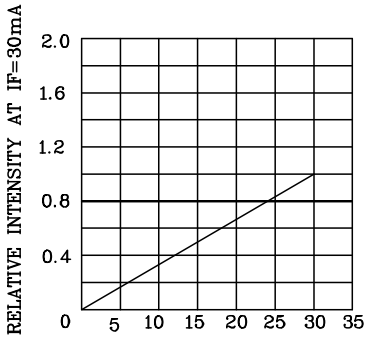


RELATIVE INTENSITY Vs. WAVELENGTH

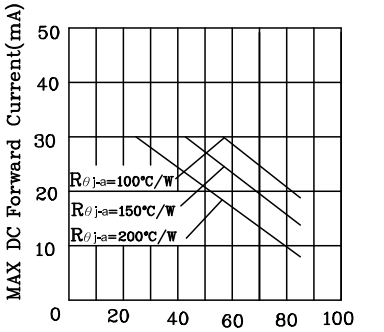
❖ **DG**



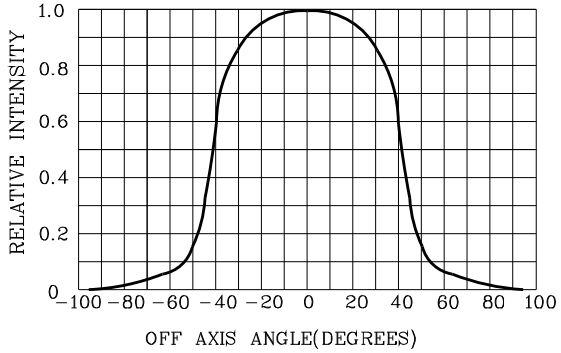
FORWARD CURRENT Vs.
FORWARD VOLTAGE



RELATIVE INTENSITY Vs.
FORWARD CURRENT



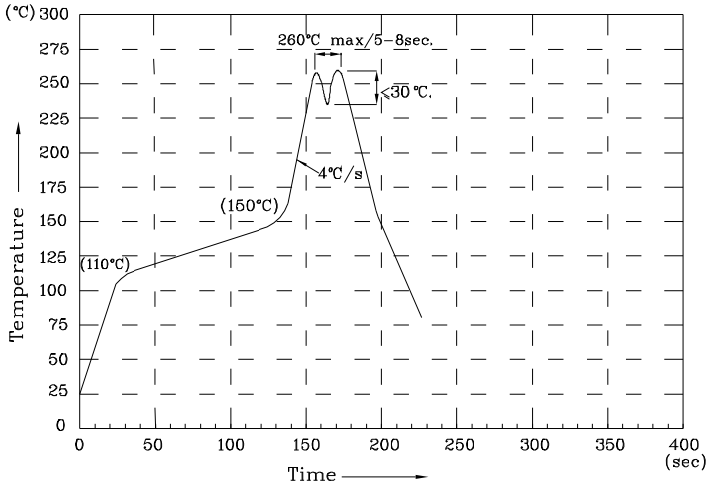
MAX DC FORWARD CURRENT Vs.
AMBIENT TEMPERATURE



RELATIVE INTENSITY VS OFF AXIS ANGLE

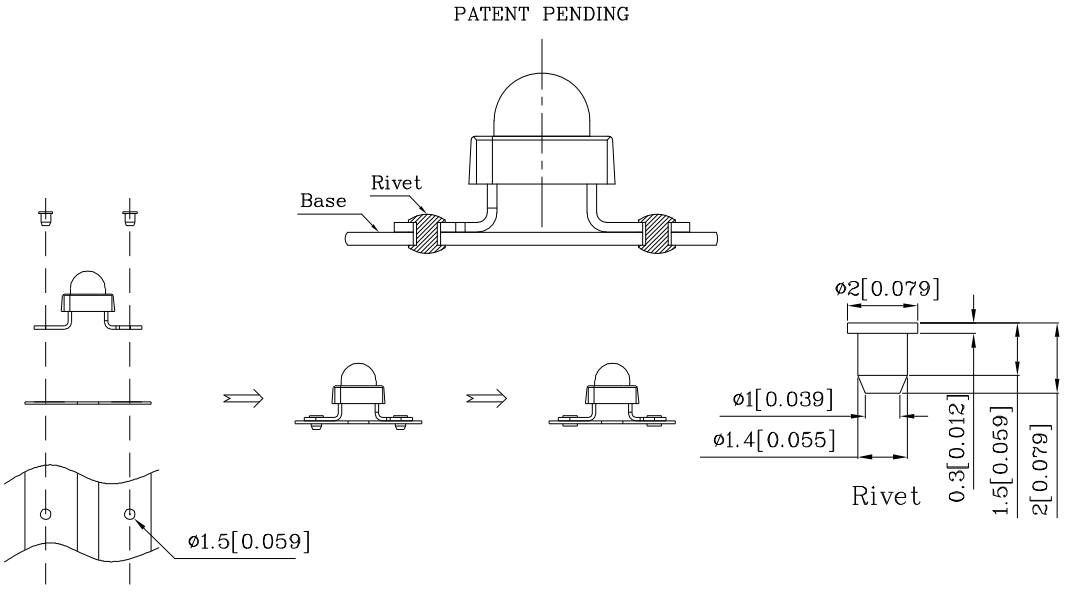
XSDG120W

Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

1. Recommend the wave temperature 245℃~260℃.The maximum soldering temperature should be less than 260℃.
2. Do not apply stress on epoxy resins when temperature is over 85 degree℃.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. No more than once.



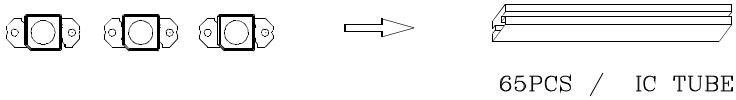
Remarks:

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:

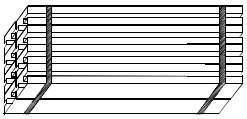
1. Wavelength: +/-1nm
2. Luminous Intensity / luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

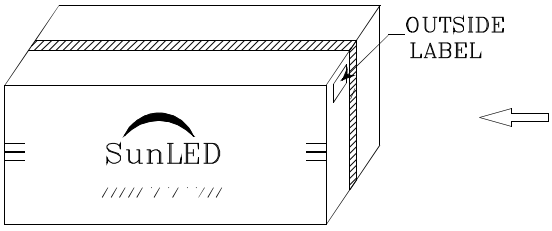
PACKING & LABEL SPECIFICATIONS XSDG120W



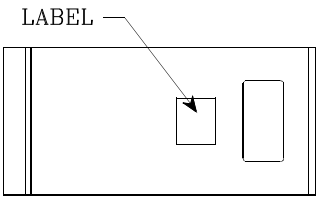
65PCS / IC TUBE



520pcs / 8pcs IC TUBE



5.2K / BOX



8pcs IC TUBE / Bag