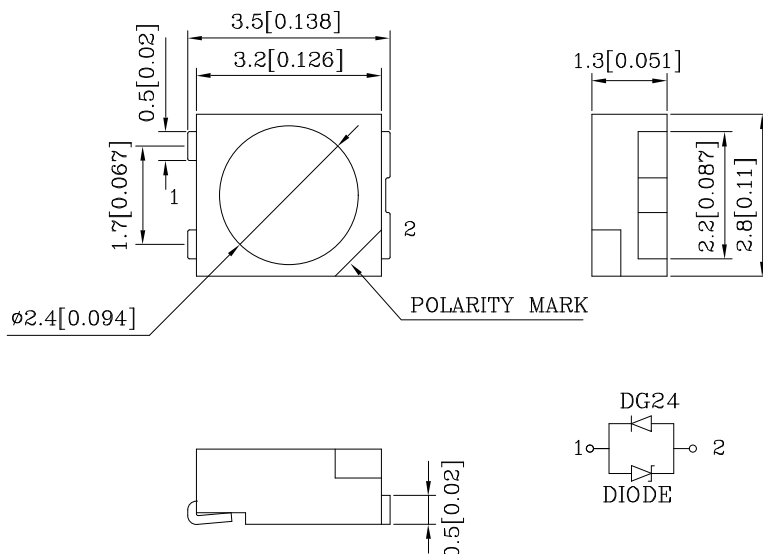


PRELIMINARY SPEC

Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- WHITE SMD PACKAGE, SILICONE RESIN.
- LOW THERMAL RESISTANCE.
- PACKAGE: 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 2a.
- RoHS COMPLIANT.



Notes:

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

Absolute Maximum Ratings (TA=25°C)		DG24 (InGaAlN)	Unit
Forward Current	IF	150	mA
Thermal Resistance	Rth	170	°C /W
Power Dissipation	Pr	570	mW
Operating Temperature	TA	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

Operating Characteristics (TA=25°C)		DG24 (InGaAlN)	Unit
Forward Voltage (Typ.) (IF=150mA)	V _F	3.4	V
Forward Voltage (Max.) (IF=150mA)	V _F	3.8	V
Wavelength of Peak Emission (Typ.) (IF=150mA)	λ P	515	nm
Wavelength of Dominant Emission (Typ.) (IF=150mA)	λ D	525	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=150mA)	Δλ	30	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	C	45	pF

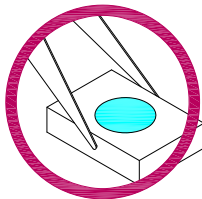
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=150mA) mcd		Luminous Flux (IF=150mA) mlm		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min.	typ.	min.	typ.		
ZDG24X109S	Green	InGaAlN	Water Clear	6700	7490	18000	21000	515	120°
Published Date : FEB 25, 2008			Drawing No : SDSA6169		V1	Checked : B.L.LIU			P.1/5

Handling Precautions

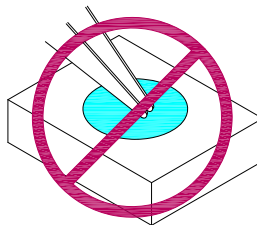
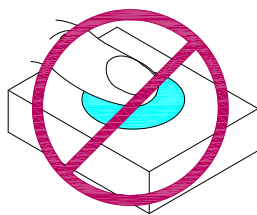
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might leads to damage and premature failure of the LED.

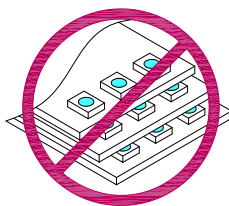
1. Handle the component along the side surfaces by using forceps or appropriate tools.



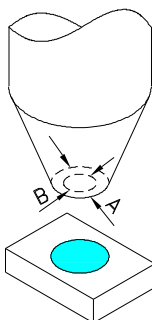
2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.

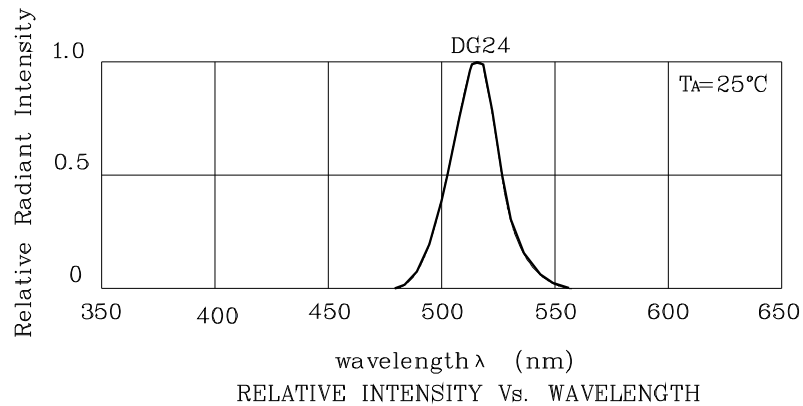


3. Do not stack together assembled PCBs containing exposed LEDs. Outside impact may scratch the silicone lens or damage the internal circuitry.

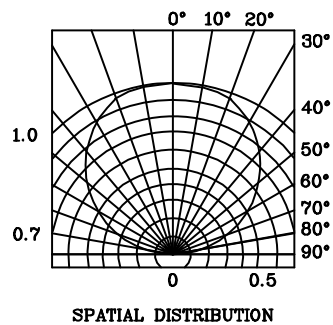
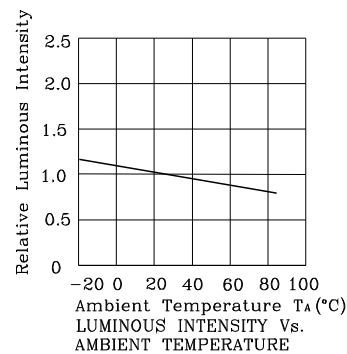
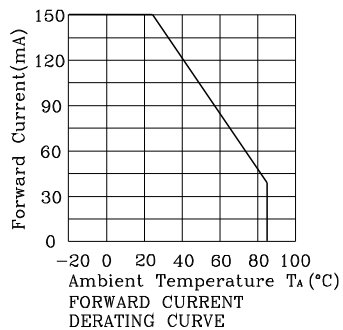
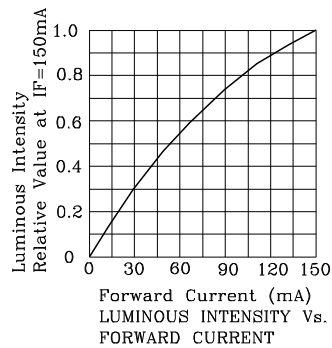
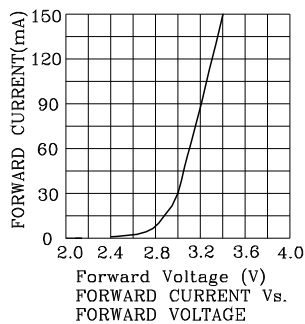


4. The outer diameter of the SMD pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
5. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
6. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.

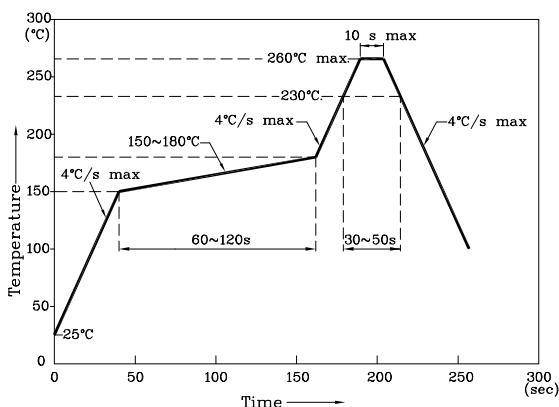




❖ **DG24**



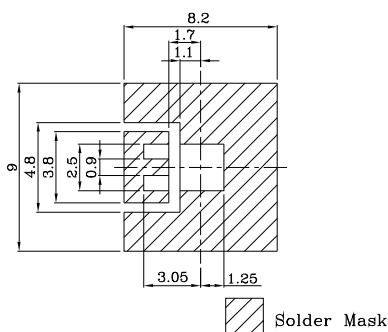
Reflow Soldering Profile For Lead-free SMT Process.



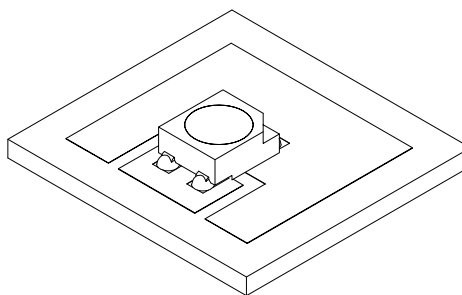
NOTES:

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.

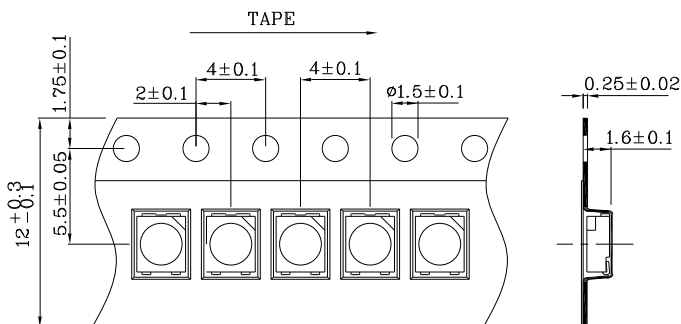
❖ **Recommended Soldering Pattern**
(Units : mm; Tolerance: ± 0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

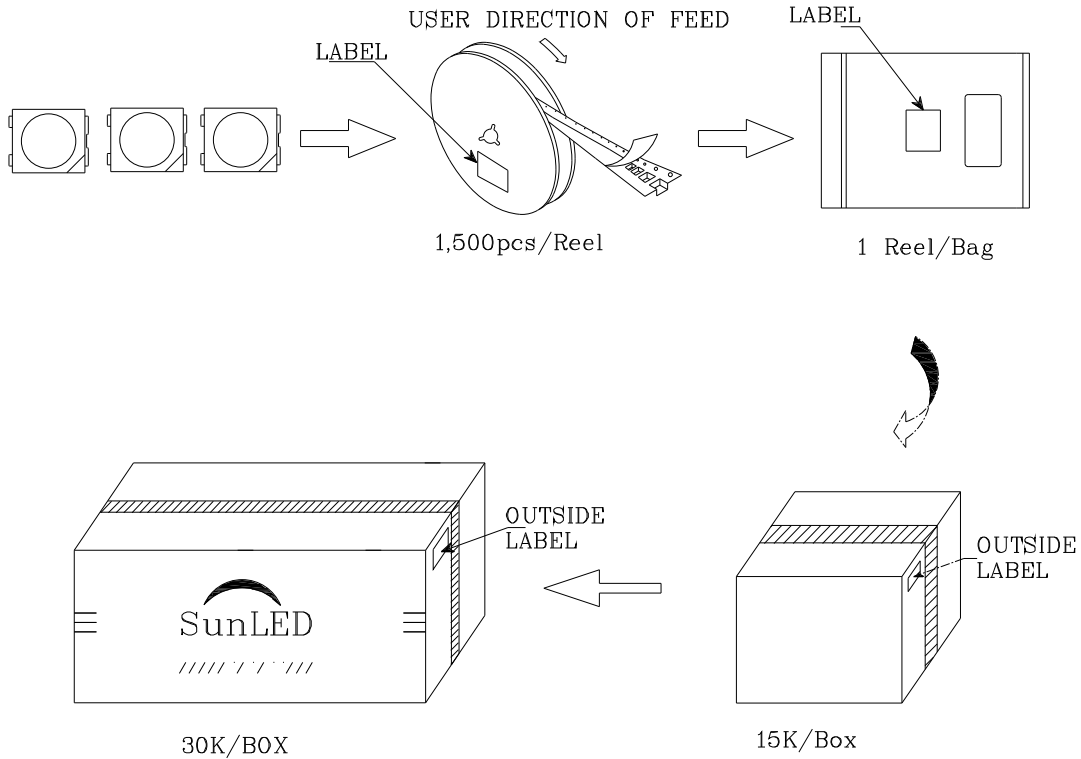
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: $\pm 1\text{nm}$
2. Luminous Intensity / luminous flux: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$


Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS

ZDG24X109S



SunLED

P/N0 : Zxxx109x	
QTY : 1,500 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	

Q.C. Q C
XX XX XXXX
PASSED