

Features

- High current operation for greater luminous output
- Low Power Consumption and thermal resistance
- Can be used with automatic insertion equipment
- RoHS Compliant



Benefits:

- Rugged design allows for easy maintenance
- Robust package for optimum reliability

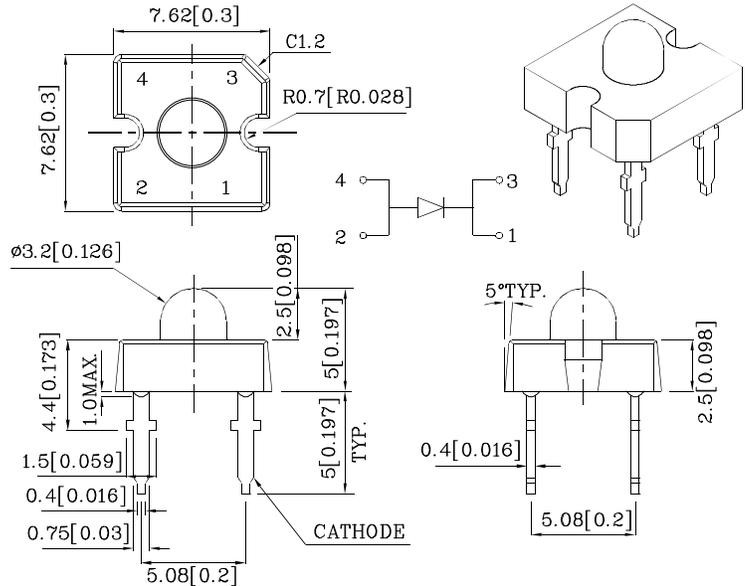
Typical Applications:

- Automotive side markers
- Gaming and entertainment lighting
- Signs and road hazard indicators



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Package Schematics



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.

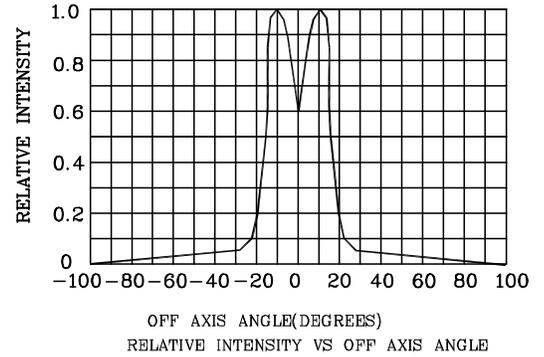
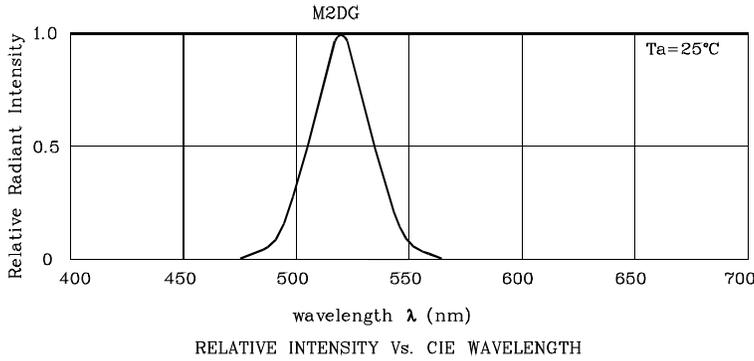
Absolute Maximum Ratings ($T_A=25^\circ\text{C}$)		M2DG (InGaN)	Unit
Reverse Voltage	V_R	5	V
DC Forward Current	I_F	30	mA
Power Dissipation	P_D	123	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	T_{stg}	-55 ~ +85	
Electrostatic Discharge Threshold (HBM)		450	V
Lead Solder Temperature [1.5mm Below Seating Plane.][1]		260°C For 5 Seconds	

Operating Characteristics ($T_A=25^\circ\text{C}$)		M2DG (InGaN)	Unit
Forward Voltage (Typ.) ($I_F=30\text{mA}$)	V_F	3.3	V
Forward Voltage (Max.) ($I_F=30\text{mA}$)	V_F	4.1	V
Reverse Current (Max.) ($V_R=5\text{V}$)	I_R	50	μA
Wavelength of Peak Emission CIE127-2007*(Typ.) ($I_F=30\text{mA}$)	λ_P	520*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) ($I_F=30\text{mA}$)	λ_D	525*	nm
Spectral Line Full Width At Half Maximum (Typ.) ($I_F=30\text{mA}$)	$\Delta\lambda$	35	nm
Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$)	C	100	pF
Thermal Resistance (Typ.)	$R_{\theta j-pin}$	150	°C/W

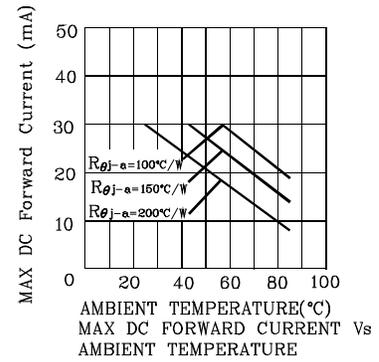
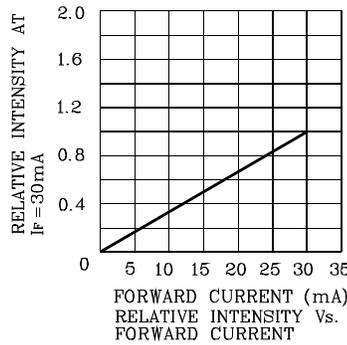
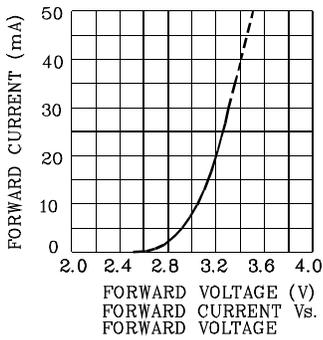
1.No Reflow soldering .

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ($I_F=30\text{mA}$) cd		Luminous Flux CIE127-2007* ($I_F=30\text{mA}$) lm	Wavelength CIE127-2007* λ_P nm	Viewing Angle 2θ 1/2
				min.	typ.	typ.		
XSM2DG783W	Green	InGaN	Water Clear	7*	10*	5.3*	520*	30°

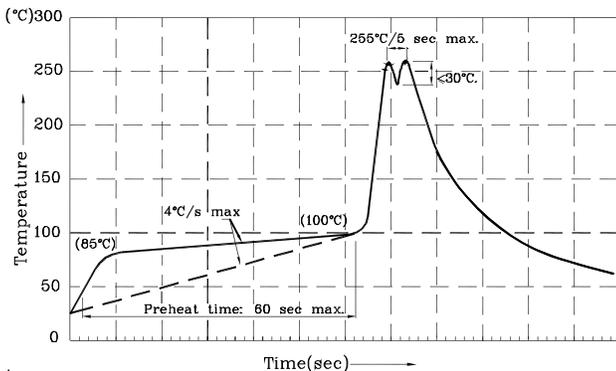
1.Luminous intensity is measured with an integrating sphere after the device has stabilized.
 2. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
 3. LEDs are binned according to their Luminous intensity.
 *Luminous intensity / luminous flux value and wavelength are in accordance with CIE127-2007 standards.



❖ M2DG



Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



Notes:

1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
4. Fixtures should not incur stress on the component when mounting and during soldering process.
5. SAC 305 solder alloy is recommended.
6. No more than one wave soldering pass.

Remarks:

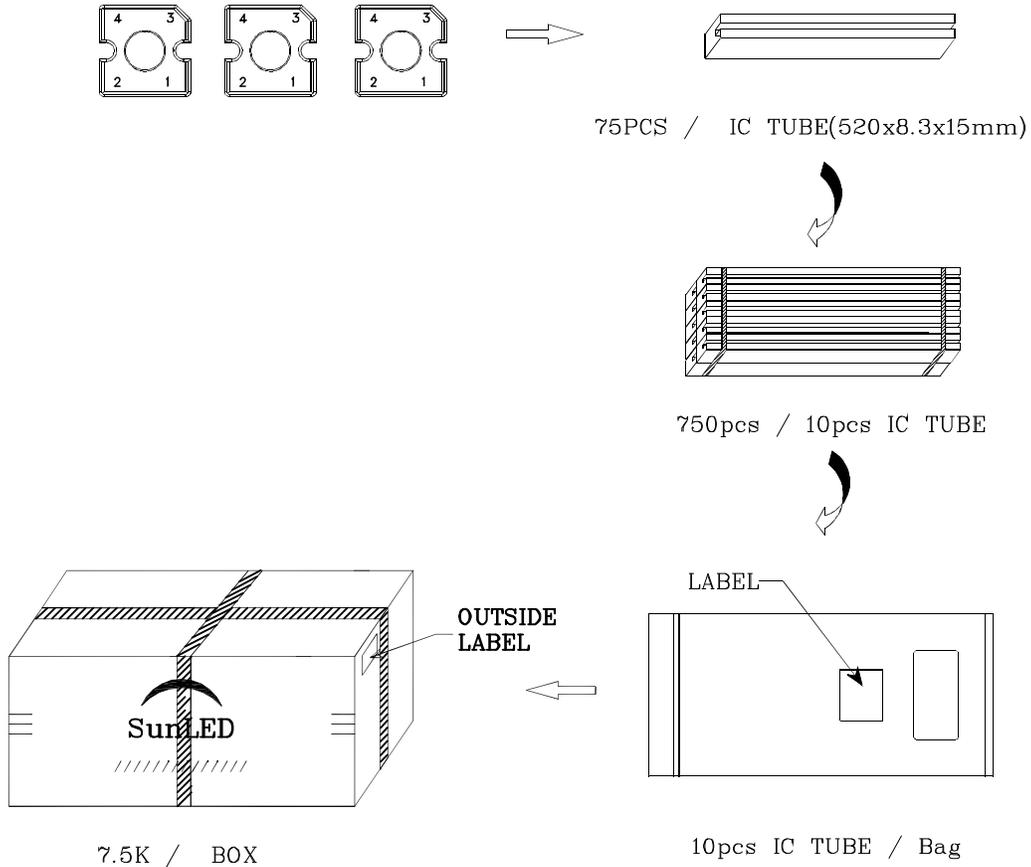
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

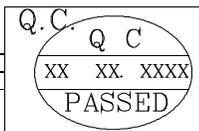
1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.



PACKING & LABEL SPECIFICATIONS




	
P/NO : XSxxx783x	
QTY : 750 pcs	CODE: XXX
S/N : XX	
LOT NO:	
	
<p>xxxxxxxxxxxxxxxxxxxxxxxx</p> <p style="text-align: right;">RoHS Compliant</p>	