

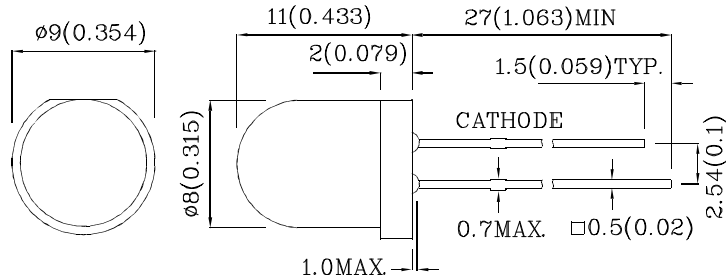
Features

- Radial / Through hole package
- Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS Compliant



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Package Schematics



Notes:

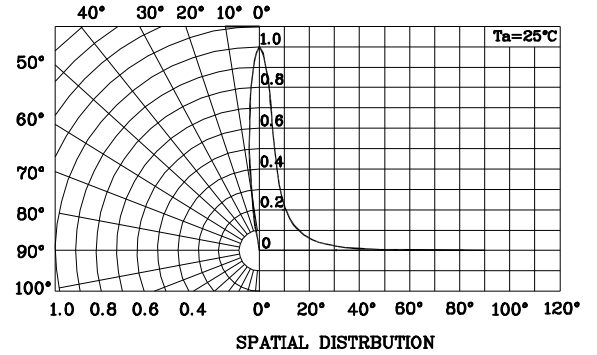
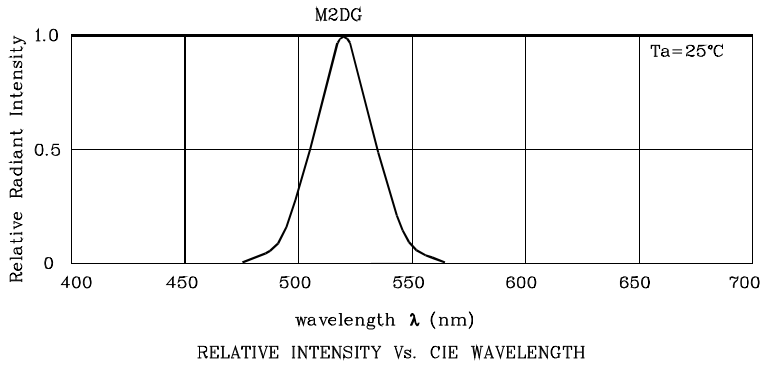
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ " unless otherwise noted.
3. Specifications are subject to change without notice.

| Absolute Maximum Ratings ($T_A=25^\circ\text{C}$) | | M2DG (InGaN) | Unit |
|--|---------------------|-----------------|------|
| Reverse Voltage | V_R | 5 | V |
| Forward Current | I_F | 30 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i_{FS} | 100 | mA |
| Power Dissipation | P_D | 120 | mW |
| Operating Temperature | T_A | -40 ~ +85 | °C |
| Storage Temperature | T_{stg} | -40 ~ +85 | |
| Electrostatic Discharge Threshold (HBM) | | 450 | V |
| Lead Solder Temperature [2mm Below Package Base] | 260°C For 3 Seconds | | |
| Lead Solder Temperature [5mm Below Package Base] | 260°C For 5 Seconds | | |

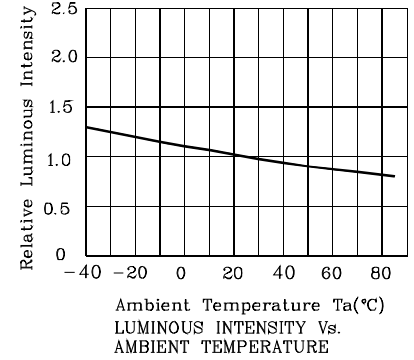
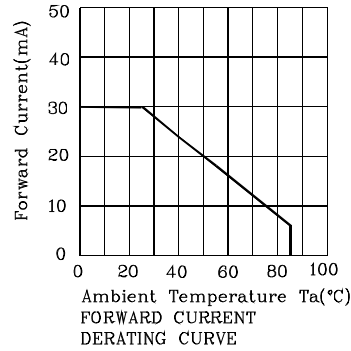
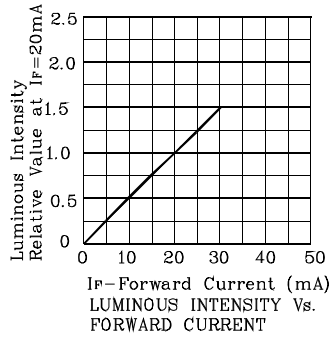
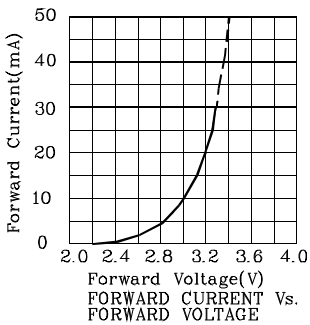
| Operating Characteristics ($T_A=25^\circ\text{C}$) | | M2DG (InGaN) | Unit |
|---|-----------------|-----------------|------|
| Forward Voltage (Typ.) ($I_F=20\text{mA}$) | V_F | 3.2 | V |
| Forward Voltage (Max.) ($I_F=20\text{mA}$) | V_F | 4 | V |
| Reverse Current (Max.) ($V_R=5\text{V}$) | I_R | 50 | uA |
| Wavelength of Peak Emission CIE127-2007* (Typ.) ($I_F=20\text{mA}$) | λ_P | 520* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) ($I_F=20\text{mA}$) | λ_D | 525* | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$) | $\Delta\lambda$ | 35 | nm |
| Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$) | C | 100 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* ($I_F=20\text{mA}$) mcd | | Wavelength CIE127-2007* nm λ_P | Viewing Angle 2 θ 1/2 |
|-------------|----------------|-------------------|-------------|--|--------|---|---------------------------------|
| | | | | min. | typ. | | |
| XLM2DG81W | Green | InGaN | Water Clear | 6700* | 11000* | 520* | 15° |

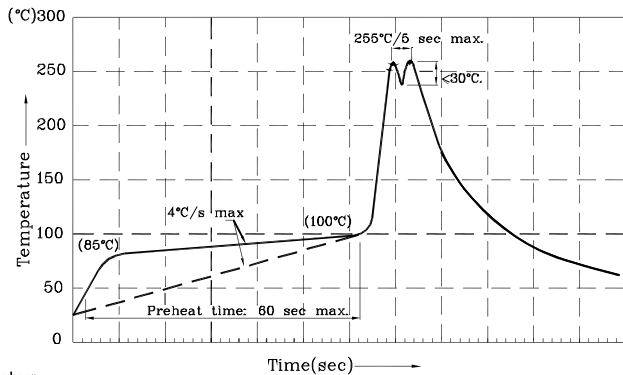
*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.



❖ 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 280°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.

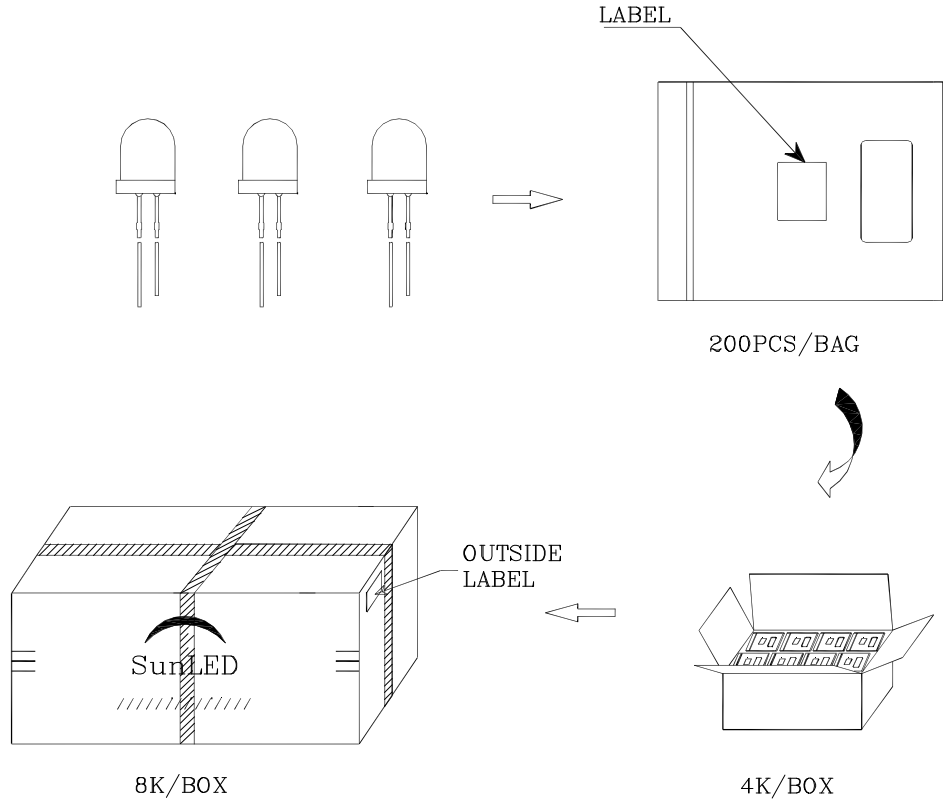
Remarks:


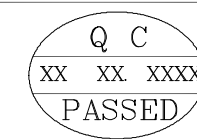

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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/N0 : XLxx81x | | |
| QTY : 200 pcs | CODE: XXX | |
| S/N : XX | | |
| LOT NO: | | |
|  XXXXXXXXXXXXXXXXXXXX | | |
| RoHS Compliant | | |