

### Part Number: XZM2DG54W-1

2.0x1.25mm SMD CHIP LED LAMP

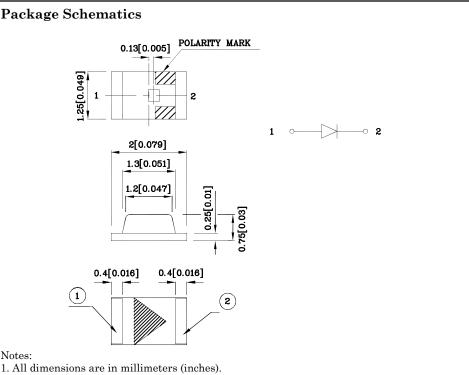
### Features

- Ideal for indication light on hand held products
- Long life and robust package
- Variety of lens types and color choices available
- Package : 2000 pcs / reel
- Moisture sensitivity level : level 3
- RoHS compliant





ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



2. Tolerance is  $\pm 0.1(0.004")$  unless otherwise noted.

3. Specifications are subject to change without notice.

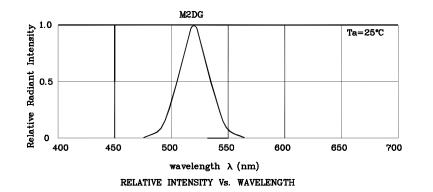
| Absolute Maximum Ratings<br>(T <sub>A</sub> =25°C)             |                           | M2DG<br>(InGaN) | Unit |  |
|--|---------------------------|-----------------|------|--|
| Reverse Voltage  | $V_{\mathrm{R}}$          | 5               | V    |  |
| Forward Current  | $\mathbf{I}_{\mathbf{F}}$ | 30              | mA   |  |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | $i_{\rm FS}$              | 100             | mA   |  |
| Power Dissipation  | PD                        | 120             | mW   |  |
| Operating Temperature  | $T_{\rm A}$               | $-40 \sim +85$  | ۰C   |  |
| Storage Temperature  | Tstg                      | $-40 \sim +85$  |      |  |
| Electrostatic Discharge Threshold<br>(HBM)                     | 450                       | V               |      |  |

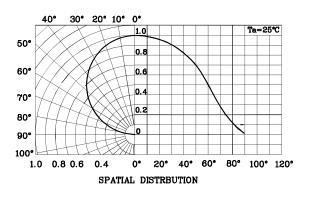
| Operating Characteristics<br>(T <sub>A</sub> =25°C)                          |                   | M2DG<br>(InGaN) | Unit |  |
|--|-------------------|-----------------|------|--|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =20mA)                             | $V_{\mathrm{F}}$  | 3.2             | V    |  |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =20mA)                             | $V_{\mathrm{F}}$  | 4               | V    |  |
| Reverse Current (Max.)<br>(V <sub>R</sub> =5V)                               | $I_R$             | 50              | uA   |  |
| Wavelength of Peak<br>Emission (Typ.)<br>(I <sub>F</sub> =20mA)              | λP                | 520             | nm   |  |
| Wavelength of Dominant<br>Emission (Typ.)<br>(I <sub>F</sub> =20mA)          | λD                | 525             | nm   |  |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =20mA) | $	riangle\lambda$ | 35              | nm   |  |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                           | С                 | 100             | pF   |  |

| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color  | Luminous<br>Intensity<br>(I <sub>F</sub> =20mA)<br>mcd |      | Wavelength $nm \\ \lambda P$ | Viewing<br>Angle<br>20 1/2 |
|----------------|-------------------|----------------------|-------------|--|------|------------------------------|----------------------------|
|                |                   |                      |             | min.   | typ. |                              |                            |
| XZM2DG54W-1    | Green             | InGaN                | Water Clear | 480  | 745  | 520                          | 120°                       |

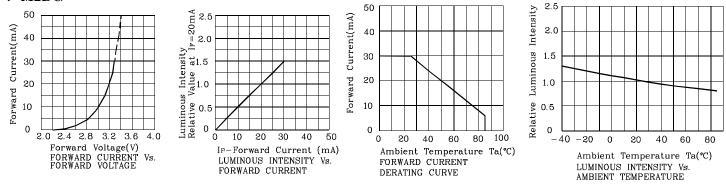
XDSB5730 V1 Layout: Maggie L.





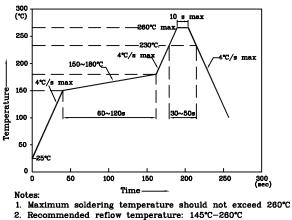






# LED is recommended for reflow soldering and soldering profile is shown below.

Reflow Soldering Profile for SMD Products (Pb-Free Components)



Do not put stress to the epoxy resin during

З. high temperatures conditions

XDSB5730 V1 Layout: Maggie L.

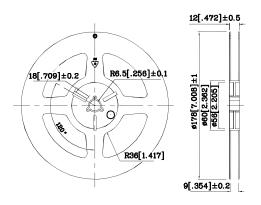


✤ The device has a single mounting surface. The device must be mounted according to the specifications.

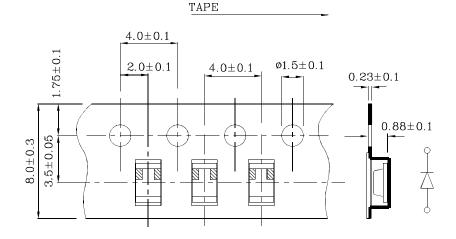
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



### Reel Dimension



# 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.

Mar 23,2011



## PACKING & LABEL SPECIFICATIONS

