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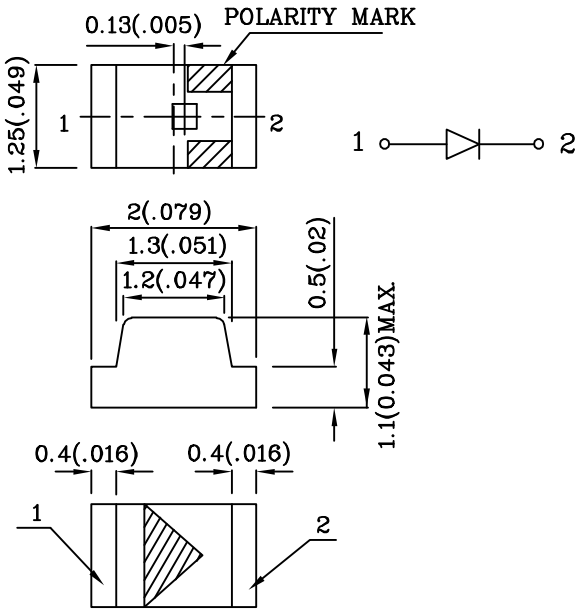
**Part Number: XZMG54W**

2.0x1.25mm SMD CHIP LED LAMP

## Features

- 2.0mmx1.25mm SMT LED,1.1mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- RoHS COMPLIANT.



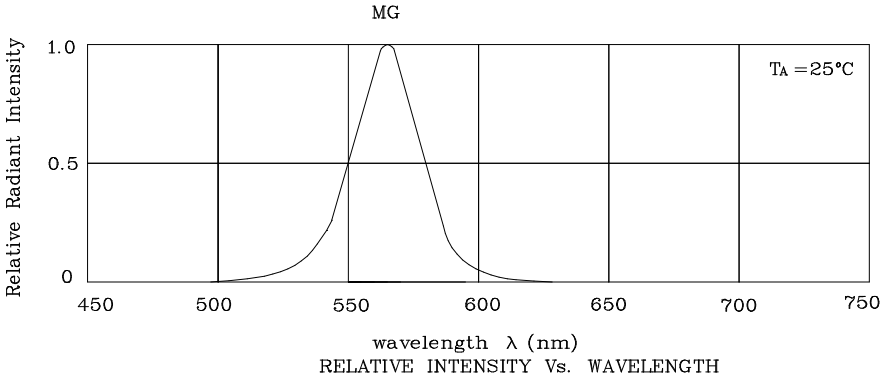

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.1(0.004") unless otherwise noted.

| **Absolute maximum ratings ($T_A$=25°C)** | | **MG (GaP)** | **Unit** |
|---|---|---|---|
| Reverse Voltage | $V_R$ | 5 | V |
| Forward Current | $I_F$ | 25 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | $i_{FS}$ | 140 | mA |
| Power Dissipation | $P_T$ | 105 | mW |
| Operating Temperature | $T_A$ | -40 ~ +85 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | |

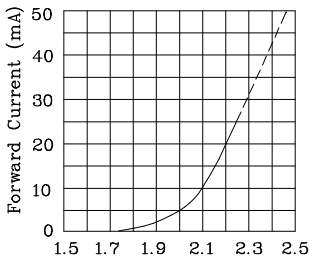
| **Operating Characteristics ($T_A$=25°C)** | | **MG (GaP)** | **Unit** |
|---|---|---|---|
| Forward Voltage (Typ.) ($I_F$=20mA) | $V_F$ | 2.2 | V |
| Forward Voltage (Max.) ($I_F$=20mA) | $V_F$ | 2.5 | V |
| Reverse Current ($V_R$=5V) | $I_R$ | 10 | uA |
| Wavelength of Peak Emission ($I_F$=20mA) | λ p | 565 | nm |
| Wavelength of Dominant Emission ($I_F$=20mA) | λ D | 568 | nm |
| Spectral Line Full Width At Half-Maximum ($I_F$=20mA) | Δλ | 30 | nm |
| Capacitance ($V_F$=0V, f=1MHz) | C | 15 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity (IF=20mA) mcd | | Wavelength nm λ P | Viewing Angle 2 θ 1/2 |
|---|---|---|---|---|---|---|---|
| | | | | min. | typ. | | |
| XZMG54W | Green | GaP | Water Clear | 4 | 14 | 565 | 120° |

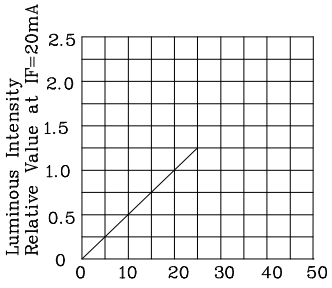


RELATIVE INTENSITY Vs. WAVELENGTH

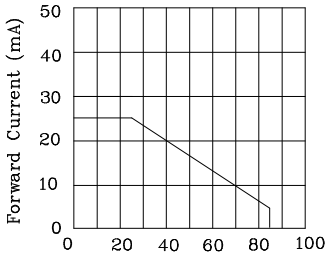
## ❖ MG



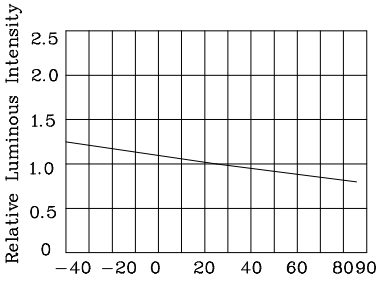
FORWARD CURRENT Vs.
FORWARD VOLTAGE



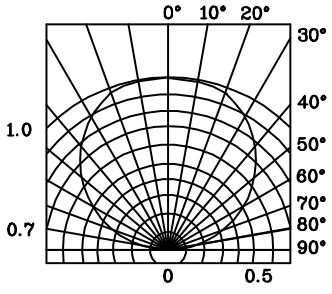
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

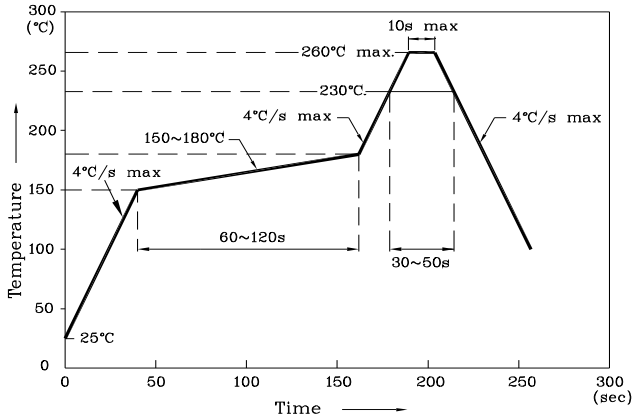


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



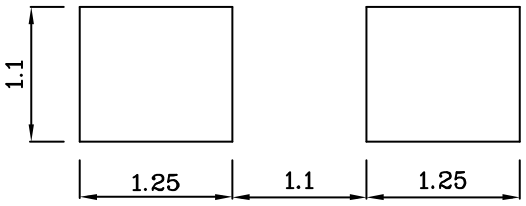
SPATIAL DISTRIBUTION

Reflow Soldering Profile For Lead-free SMT Process.

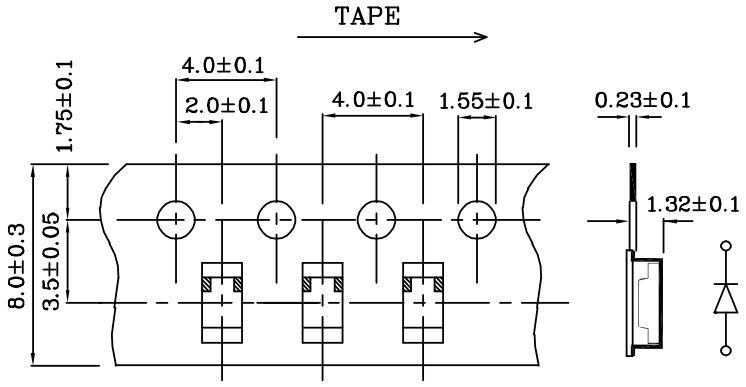



Notes:
1. Maximum soldering temperature should not exceed 260℃.
2. Recommended reflow temperature: 145℃-260℃.
3. Do not put stress to the epoxy resin during high temperatures conditions.

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




## ❖ Tape Specification (Units : mm)




Remarks:
If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:
1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V
Note: Accuracy may depend on the sorting parameters.