

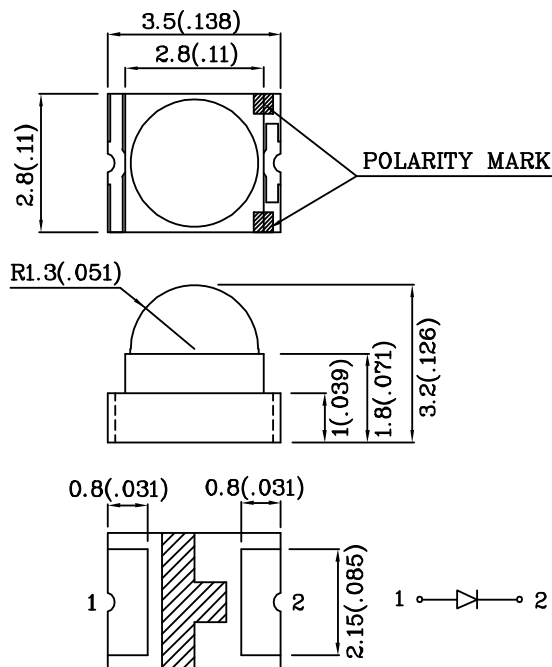
## Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- IDEAL FOR BACKLIGHTING.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE : 500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



Notes:

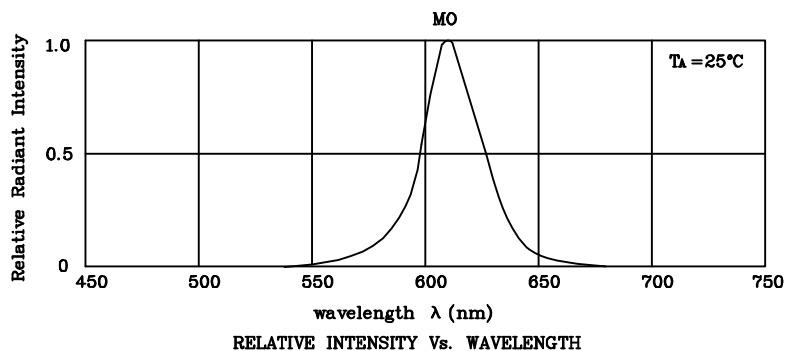
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.
3. Specifications are subject to change without notice.



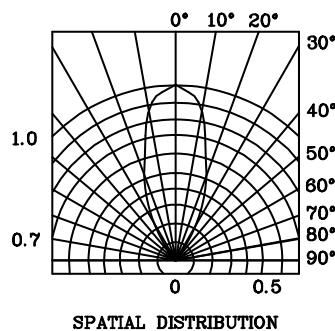
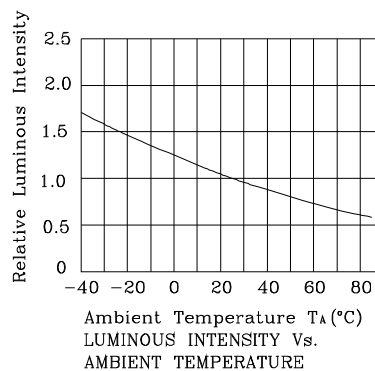
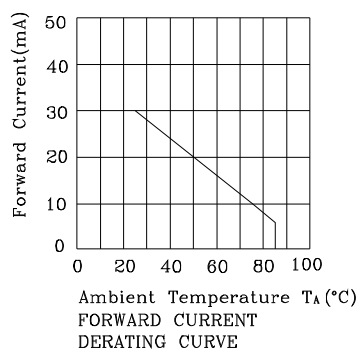
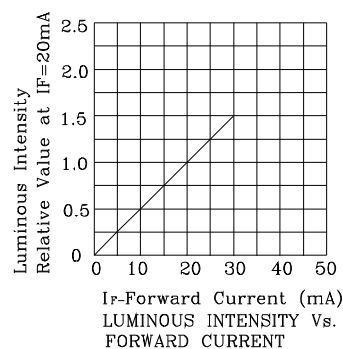
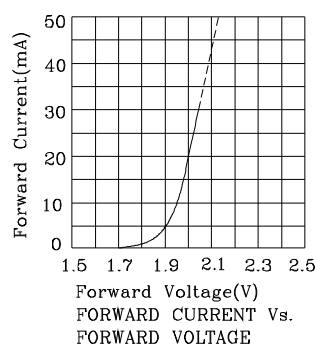
| Absolute maximum ratings<br>(TA=25°C)                          |      | MO<br>(InGaAlP) | Unit |
|----------------------------------------------------------------|------|-----------------|------|
| Reverse Voltage                                                | VR   | 5               | V    |
| Forward Current                                                | IF   | 30              | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | iFS  | 195             | mA   |
| Power Dissipation                                              | PT   | 75              | mW   |
| Operating Temperature                                          | TA   | -40 ~ +85       | °C   |
| Storage Temperature                                            | Tstg | -40 ~ +85       |      |

| Operating Characteristics<br>(TA=25°C)                          |                 | MO<br>(InGaAlP) | Unit |
|-----------------------------------------------------------------|-----------------|-----------------|------|
| Forward Voltage (Typ.)<br>(IF=20mA)                             | VF              | 2.0             | V    |
| Forward Voltage (Max.)<br>(IF=20mA)                             | VF              | 2.5             | V    |
| Reverse Current (Max.)<br>(VR=5V)                               | IR              | 10              | uA   |
| Wavelength of Peak<br>Emission (Typ.)<br>(IF=20mA)              | $\lambda$ P     | 610             | nm   |
| Wavelength of Dominant<br>Emission (Typ.)<br>(IF=20mA)          | $\lambda$ D     | 601             | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(IF=20mA) | $\Delta\lambda$ | 29              | nm   |
| Capacitance (Typ.)<br>(VF=0V, f=1MHz)                           | C               | 30              | pF   |

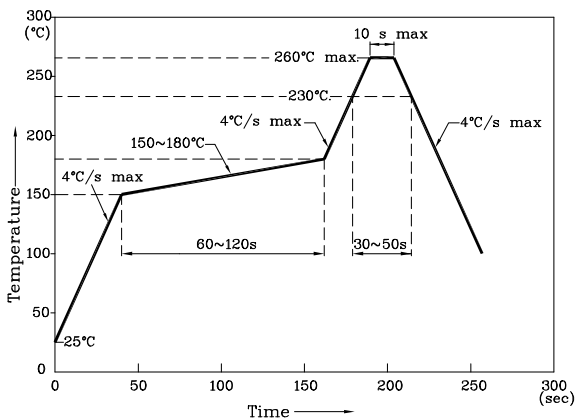
| Part Number                  | Emitting Color | Emitting Material     | Lens-color  | Luminous Intensity (IF=20mA)<br>mcd | Wavelength<br>nm<br>λ P | Viewing Angle<br>2 θ 1/2     |
|------------------------------|----------------|-----------------------|-------------|-------------------------------------|-------------------------|------------------------------|
|                              |                |                       |             | min.                                | typ.                    |                              |
| ZMO45W-2                     | Orange         | InGaAlP               | Water Clear | 380                                 | 695                     | 610 40°                      |
|                              |                |                       |             |                                     |                         |                              |
|                              |                |                       |             |                                     |                         |                              |
| Published Date : FEB 27,2008 |                | Drawing No : SDSA4510 |             | V3                                  | Checked : B.L.LIU       | www.DataSheet4U.com<br>P.1/4 |



❖ MO



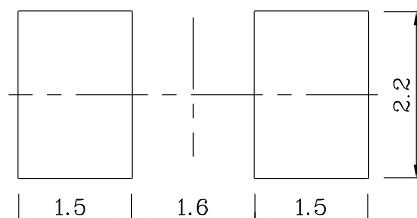
### Reflow Soldering Profile For Lead-free SMT Process.



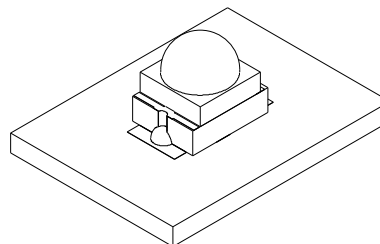
NOTES:

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.

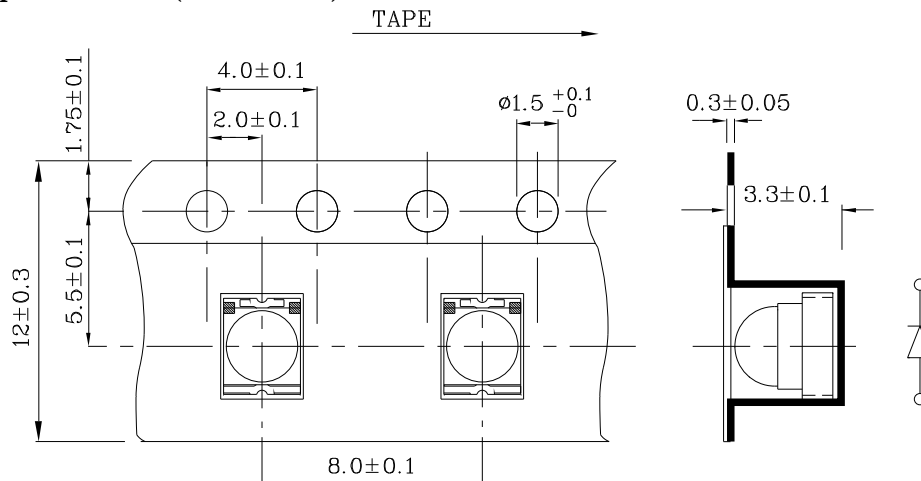
**❖ Recommended Solering Pattern  
(Units : mm; Tolerance:± 0.1)**



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



### ❖ Tape Specification (Units : mm)



## Remarks:

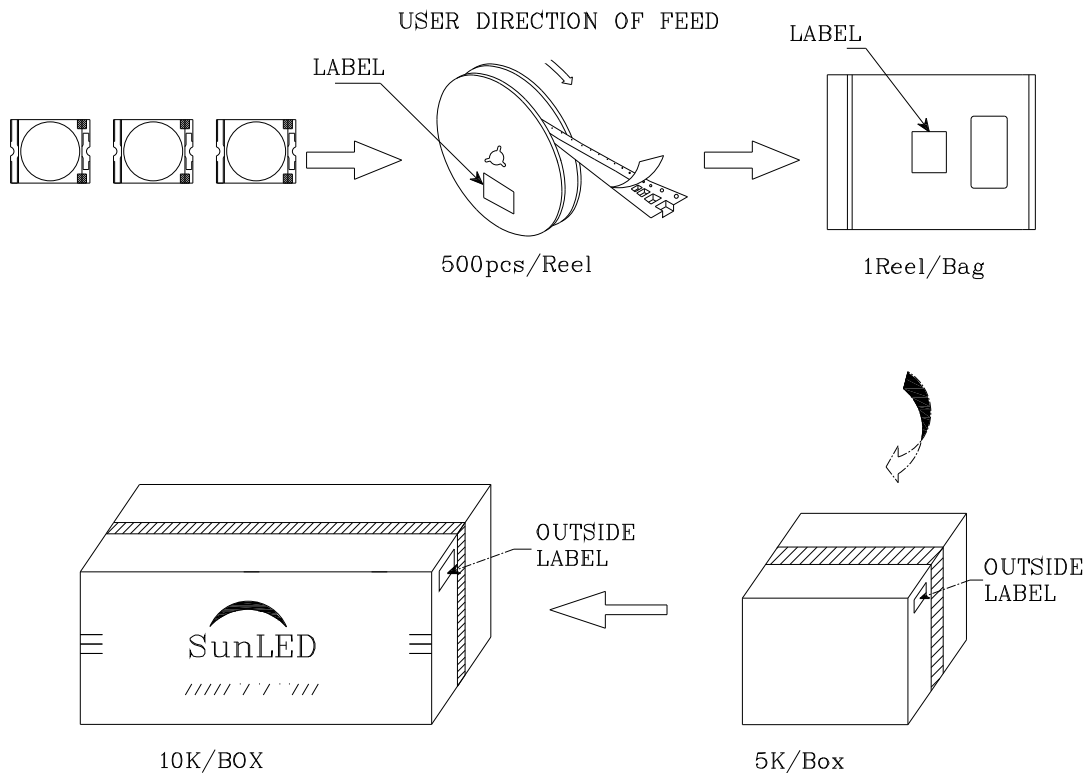
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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

# ZMO45W-2



|                                 |  |                                     |
|---------------------------------|--|-------------------------------------|
|                                 |  | Q.C.<br>Q C<br>XX XX XXXX<br>PASSED |
| P/N0 : Zxx45x-2                 |  |                                     |
| QTY : 500 pcs                   |  | CODE: XXX                           |
| S/N : XX                        |  |                                     |
| LOT NO:<br>XXXXXXXXXXXXXXXXXXXX |  |                                     |
| RoHS Compliant                  |  |                                     |