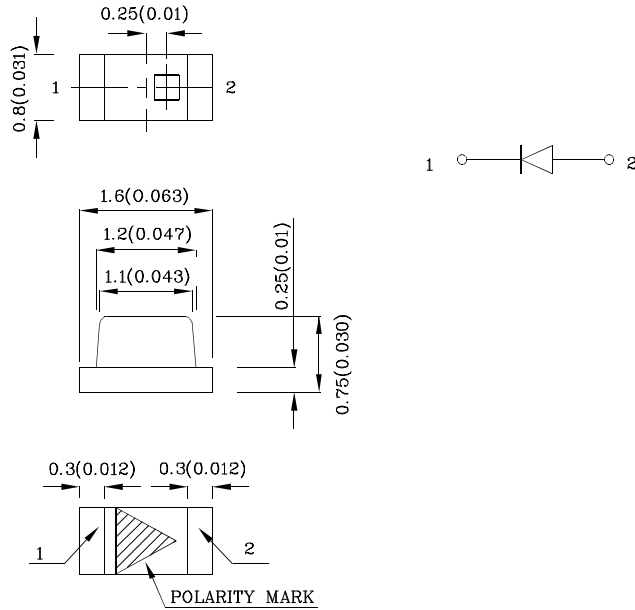


**Features**

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



**Package Schematics**



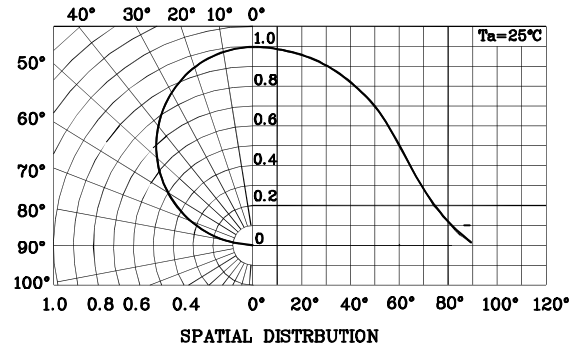
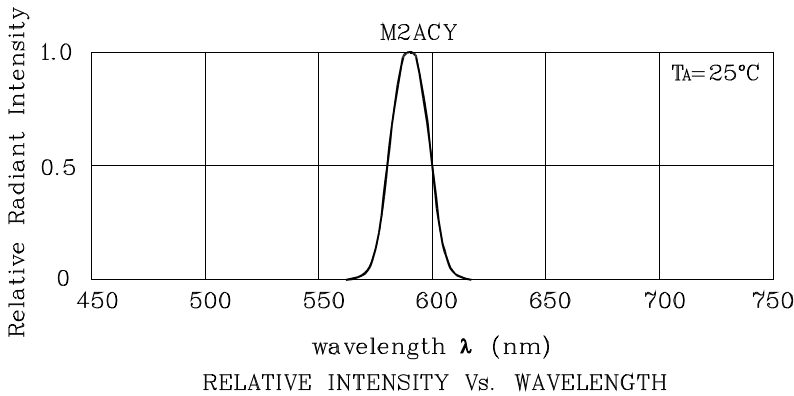
**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$ " unless otherwise noted.
3. Specifications are subject to change without notice.

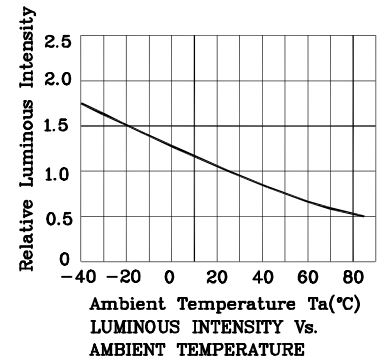
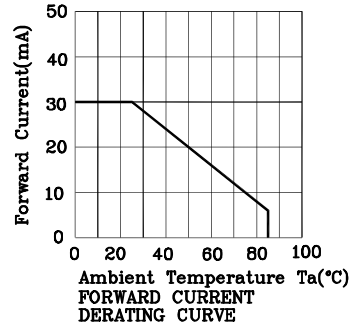
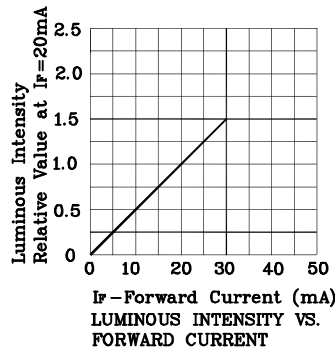
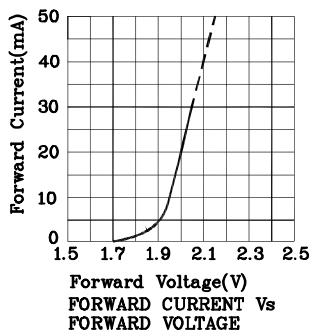
| Absolute Maximum Ratings<br>( $T_A=25^\circ\text{C}$ )         |           | M2ACY<br>(AlGaInP) | Unit |
|--|-----------|--------------------|------|
| Reverse Voltage  | $V_R$     | 5                  | V    |
| Forward Current  | $I_F$     | 30                 | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | $i_{FS}$  | 140                | mA   |
| Power Dissipation  | $P_D$     | 75                 | mW   |
| Operating Temperature  | $T_A$     | -40 ~ +85          | °C   |
| Storage Temperature  | $T_{stg}$ | -40 ~ +85          |      |

| Operating Characteristics<br>( $T_A=25^\circ\text{C}$ )                     |                 | M2ACY<br>(AlGaInP) | Unit          |
|---|-----------------|--------------------|---------------|
| Forward Voltage (Typ.)<br>( $I_F=20\text{mA}$ )                             | $V_F$           | 2                  | V             |
| Forward Voltage (Max.)<br>( $I_F=20\text{mA}$ )                             | $V_F$           | 2.5                | V             |
| Reverse Current (Max.)<br>( $V_R=5\text{V}$ )                               | $I_R$           | 10                 | $\mu\text{A}$ |
| Wavelength of Peak<br>Emission (Typ.)<br>( $I_F=20\text{mA}$ )              | $\lambda_P$     | 590                | nm            |
| Wavelength of Dominant<br>Emission (Typ.)<br>( $I_F=20\text{mA}$ )          | $\lambda_D$     | 589                | nm            |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>( $I_F=20\text{mA}$ ) | $\Delta\lambda$ | 20                 | nm            |
| Capacitance (Typ.)<br>( $V_F=0\text{V}$ , $f=1\text{MHz}$ )                 | $C$             | 45                 | pF            |

| Part Number | Emitting Color | Emitting Material | Lens-color  | Luminous Intensity<br>( $I_F=20\text{mA}$ )<br>mcd |      | Wavelength<br>nm<br>$\lambda_P$ | Viewing Angle<br>2 $\theta$ 1/2 |
|-------------|----------------|-------------------|-------------|--|------|---------------------------------|---------------------------------|
|             |                |                   |             | min.   | typ. |                                 |                                 |
| ZM2ACY53W-1 | Yellow         | AlGaInP           | Water Clear | 250  | 397  | 590                             | 120°                            |



❖ M2ACY



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

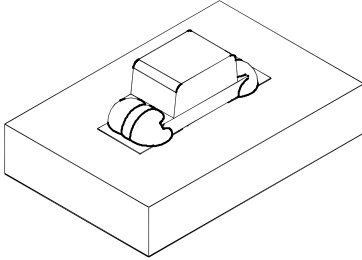
Reflow Soldering Profile for SMD Products (Pb-Free Components)



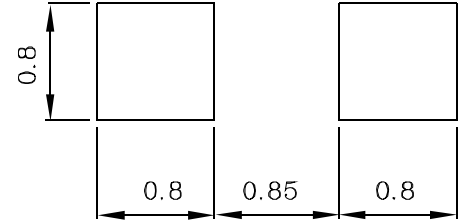
- Notes:
1. Maximum soldering temperature should not exceed 280°C
  2. Recommended reflow temperature: 145°C-260°C
  3. Do not put stress to the epoxy resin during high temperatures conditions



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



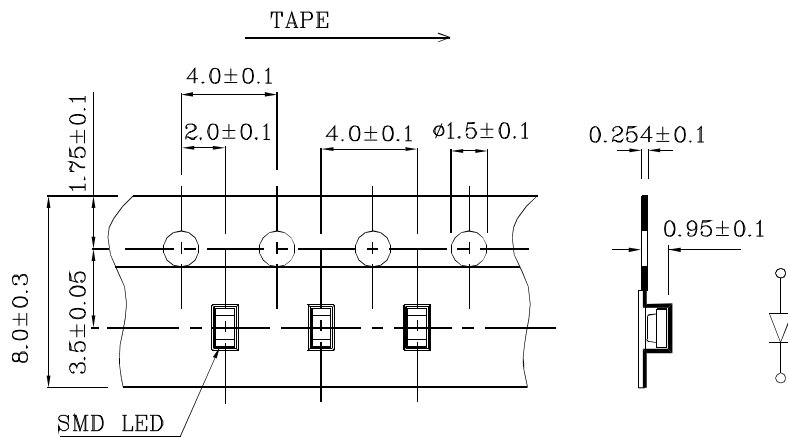
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance:  $\pm 0.1$ )



❖ Reel Dimension



❖ Tape Specification (Units : mm)



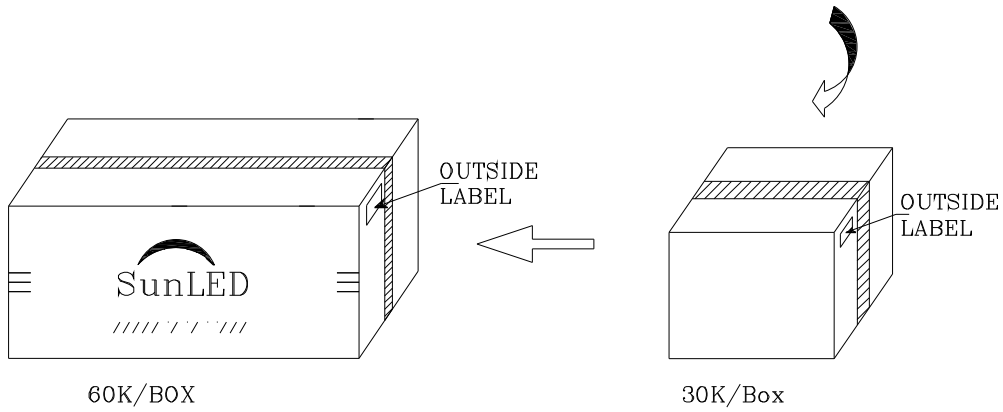
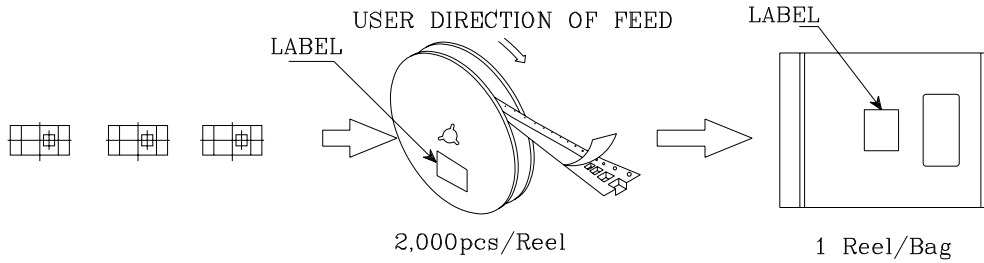

Remarks:



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:  $\pm 1\text{nm}$
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**

|  |           |  |      |  |   |   |    |          |        |  |
|--|-----------|--|------|--|---|---|----|----------|--------|--|
|                                   |           | <table border="1" data-bbox="906 1203 1130 1346"> <tr> <td colspan="2">Q.C.</td> </tr> <tr> <td>Q</td> <td>C</td> </tr> <tr> <td>XX</td> <td>XX. XXXX</td> </tr> <tr> <td colspan="2">PASSED</td> </tr> </table> | Q.C. |  | Q | C | XX | XX. XXXX | PASSED |  |
| Q.C.   |           |  |      |  |   |   |    |          |        |  |
| Q  | C         |  |      |  |   |   |    |          |        |  |
| XX   | XX. XXXX  |  |      |  |   |   |    |          |        |  |
| PASSED   |           |  |      |  |   |   |    |          |        |  |
| P/NO : Zxx53x-1  |           |  |      |  |   |   |    |          |        |  |
| QTY :  | 2,000 pcs | CODE: XXX  |      |  |   |   |    |          |        |  |
| S/N : XX   |           |  |      |  |   |   |    |          |        |  |
| LOT NO:  |           |  |      |  |   |   |    |          |        |  |
| <br>XXXXXXXXXXXXXXXXXXXXXXXXXXXX |           |  |      |  |   |   |    |          |        |  |
| RoHS Compliant   |           |  |      |  |   |   |    |          |        |  |