

PRELIMINARY SPEC

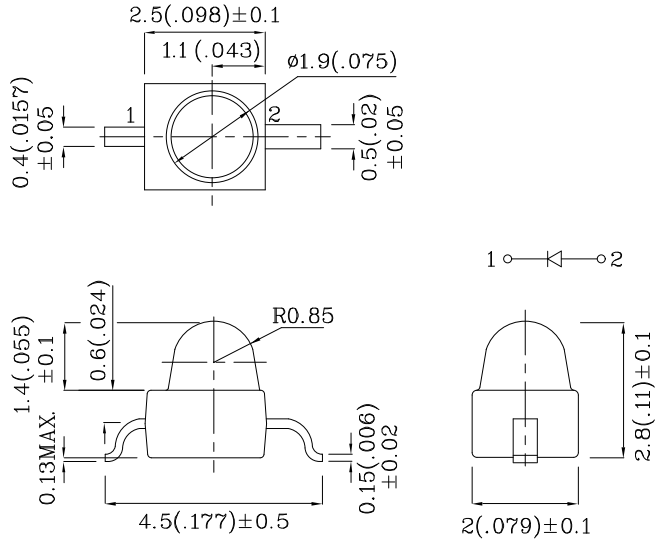
Features

- SUBMINIATURE PACKAGE.
- GULL WING LEAD.
- LONG LIFE - SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- PACKAGE : 1000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



Notes:

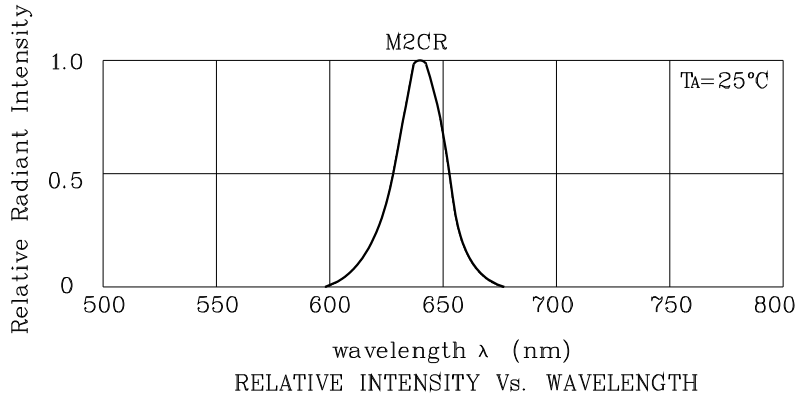
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
3. Specifications are subject to change without notice.



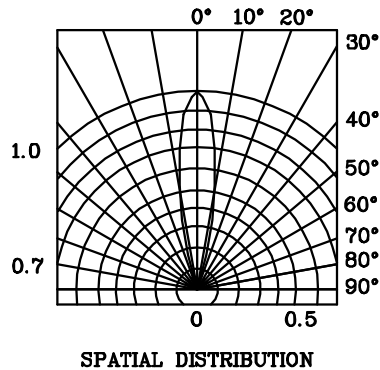
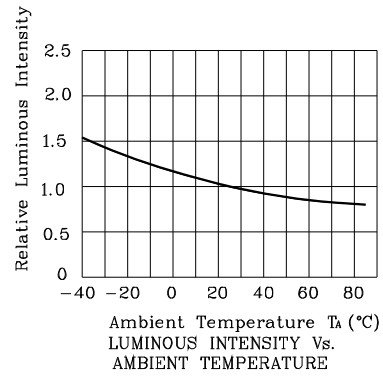
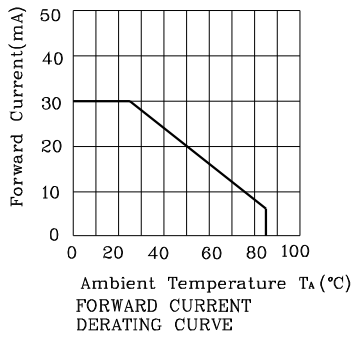
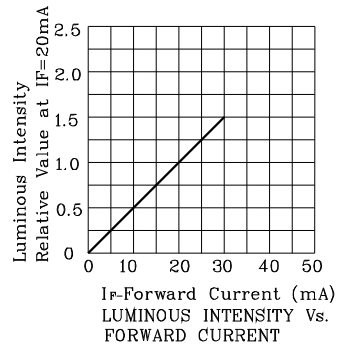
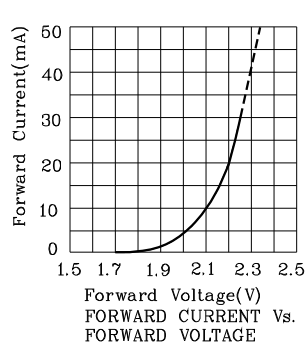
| Absolute Maximum Ratings ($T_A=25^\circ\text{C}$) | | M2CR (AlInGaP) | Unit |
|--|-----------|-------------------|------|
| Reverse Voltage | V_R | 5 | V |
| Forward Current | I_F | 30 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i_{FS} | 150 | mA |
| Power Dissipation | P_T | 84 | mW |
| Operating Temperature | T_A | -40 ~ +85 | °C |
| Storage Temperature | T_{stg} | -40 ~ +85 | |

| Operating Characteristics ($T_A=25^\circ\text{C}$) | | M2CR (AlInGaP) | Unit |
|---|-----------------|-------------------|---------------|
| Forward Voltage (Typ.) ($I_F=20\text{mA}$) | V_F | 2.2 | V |
| Forward Voltage (Max.) ($I_F=20\text{mA}$) | V_F | 2.8 | V |
| Reverse Current (Max.) ($V_R=5\text{V}$) | I_R | 10 | μA |
| Wavelength Of Peak Emission (Typ.) ($I_F=20\text{mA}$) | λ_P | 640 | nm |
| Wavelength Of Domi- nant Emission (Typ.) ($I_F=20\text{mA}$) | λ_D | 630 | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$) | $\Delta\lambda$ | 25 | nm |
| Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$) | C | 27 | pF |

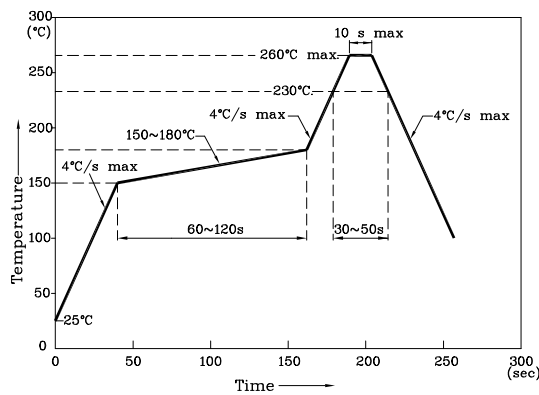
| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity ($I_F=20\text{mA}$) mcd | | Wavelength nm λ_P | Viewing Angle 2θ 1/2 |
|---|----------------|-------------------|-------------|--|-------|---------------------------------|--------------------------------|
| | | | | min. | typ. | | |
| ZM2CR46W-3 | Red | AlInGaP | Water Clear | 8000 | 14990 | 640 | 20° |
| Published Date : FEB 25,2008 Drawing No : SDSA6179 V1 Checked : B.L.LIU P.1/4 | | | | | | | |



❖ M2CR



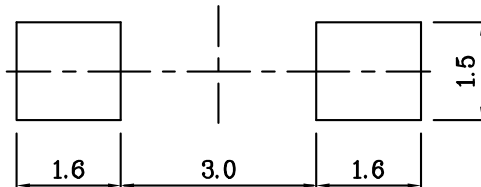
Reflow Soldering Profile For Lead-free SMT Process.



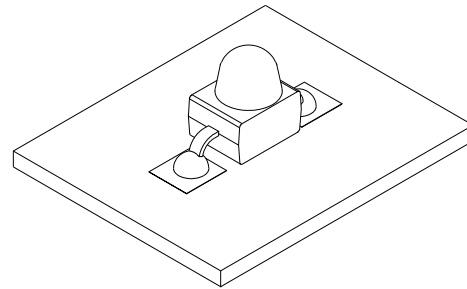
NOTES:

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.

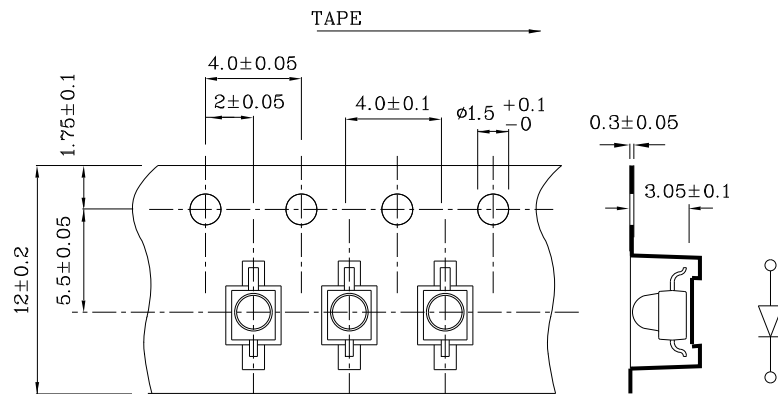
❖ Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

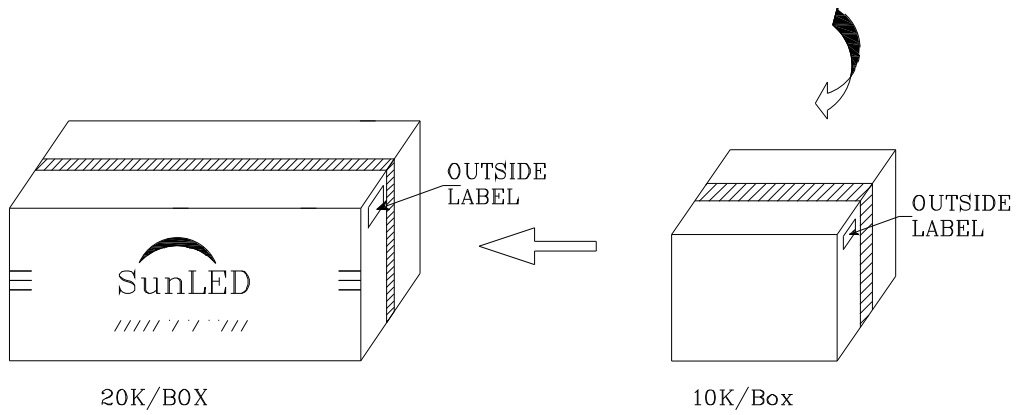
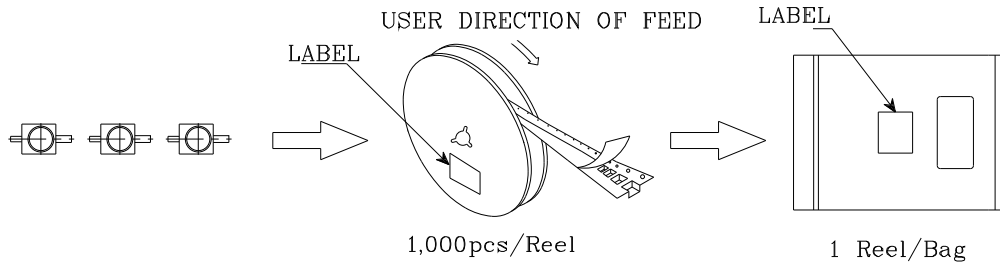
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:


1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS

ZM2CR46W-3



| | |
|--|-----------|
| P/NO : Zxxx46x-3 | |
| QTY : 1,000 pcs | CODE: XXX |
| S/N : XX | |
| LOT NO : | |
|  XXXXXXXXXXXXXXXXXXXXXXXXXXXX | |
| RoHS Compliant | |