

Part Number: XZM2ACR96W

3.5x2.7mm SURFACE MOUNT LED LAMP

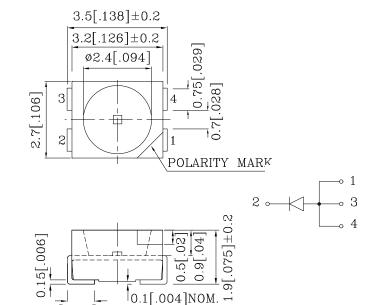
PRELIMINARY SPEC

Features

- Single color.
- Suitable for all SMT assembly and solder process.
- Available on tape and reel.
- Ideal for backlighting.
- Package: 1500pcs / reel.
- Moisture sensitivity level : level 4.
- RoHS compliant.







0.8[.032]±0.3

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 (Ta=25°C) | | M2ACR (AlInGaP) | Unit |
|--|-------------|--------------------|------|
| Reverse Voltage | $V_{\rm R}$ | 5 | V |
| Forward Current | IF | 50 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | iFS | 150 | mA |
| Power Dissipation | Рт | 160 | mW |
| Operating Temperature | TA | -40 ~ +85 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | C |

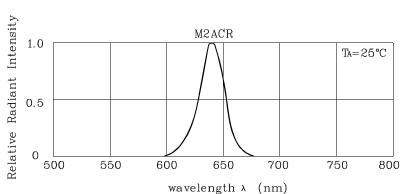
| Operating Characteristics (TA=25°C) | | M2ACR (AlInGaP) | Unit |
|--|------------------|--------------------|------|
| Forward Voltage (Typ.) (IF=50mA) | V_{F} | 2.5 | V |
| Forward Voltage (Max.) (IF=50mA) | V_{F} | 3.2 | V |
| Reverse Current (Max.) (VR=5V) | IR | 10 | uA |
| Wavelength Of Peak Emission (Typ.) (IF=50mA) | λΡ | 640 | nm |
| Wavelength Of Dominant Emission (Typ.) (IF=50mA) | λ D | 630 | nm |
| Spectral Line Full Width At Half-Maximum (Typ) (IF=50mA) | Δλ | 25 | nm |
| Capacitance (Typ.) (VF=0V, f=1MHz) | С | 27 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity (IF=50mA) mcd | | Viewing Angle 2 θ 1/2 |
|---------------------|-------------------|----------------------|-------------|---|-----------|-----------------------------|
| | | | | min. | typ. | |
| XZM2ACR96W | Red | AlInGaP | Water Clear | 3300 | 4490 | 120° |
| Published Date : DE | C 12.2008 | Drawing No : Σ | XDSB2650 V1 | Checked | : B.L.LIU | P. 1/4 |



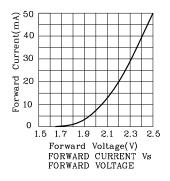
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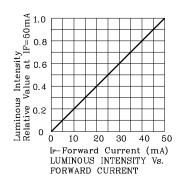
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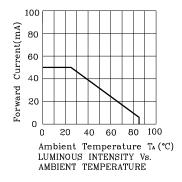


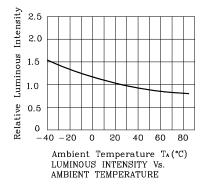
RELATIVE INTENSITY Vs. WAVELENGTH

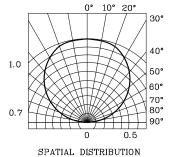
❖ M2ACR











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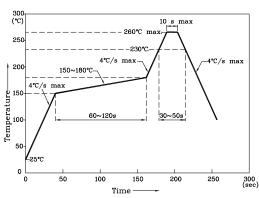


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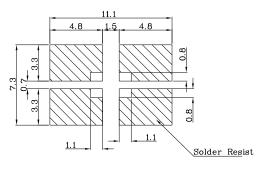
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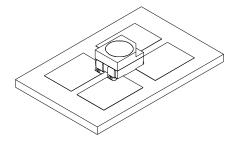
Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

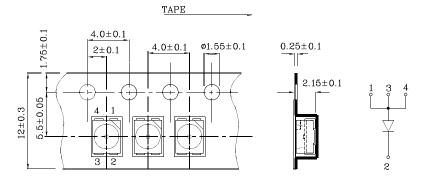


- NOTES:
 1. Maximum soldering temperature should not exceed 260°c.
 - 2. Recommended reflow temperature: 145°c-260°c.
 - $3.\ \mbox{Do not}$ put stress to the epoxy resin during high temperatures conditions.
- **❖** Recommended Soldering Pattern (Units: mm; Tolerance: ±0.1)
- ❖ The device has a single 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: ± -0.1 V

Note: Accuracy may depend on the sorting parameters.

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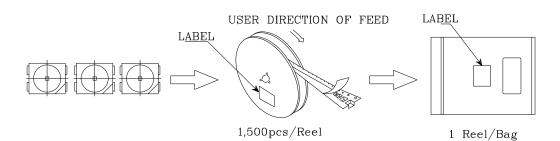


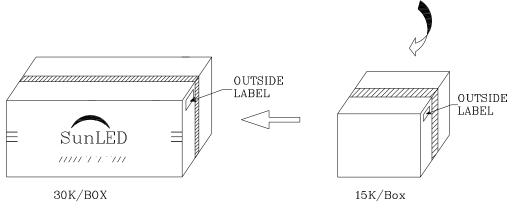
PACKING & LABEL SPECIFICATIONS

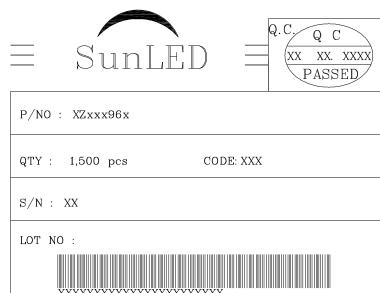
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RoHS Compliant