

3.5x2.7mm SURFACE MOUNT LED LAMP

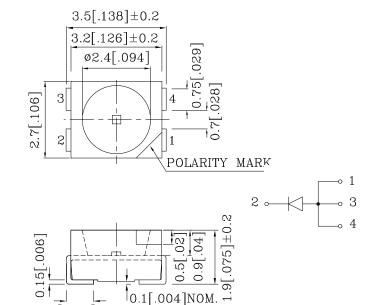
## PRELIMINARY SPEC

### **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.

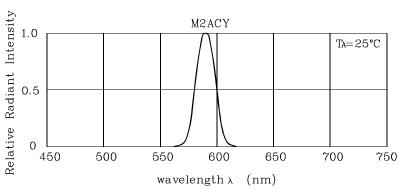
| Absolute Maximum Ratings<br>(Ta=25°C)                          |             | M2ACY<br>(AlInGaP) | Unit |
|--|-------------|--------------------|------|
| Reverse Voltage  | $V_{\rm R}$ | 5                  | V    |
| Forward Current  | IF          | 50                 | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | iFS         | 140                | mA   |
| Power Dissipation  | Рт          | 140                | mW   |
| Operating Temperature  | TA          | -40 ~ +85          | °C   |
| Storage Temperature  | Tstg        | -40 ~ +85          |      |

| Operating Characteristics (TA=25°C)                            |                  | M2ACY<br>(AlInGaP) | Unit |
|--|------------------|--------------------|------|
| Forward Voltage (Typ.)<br>(IF=50mA)                            | $V_{\mathrm{F}}$ | 2.3                | V    |
| Forward Voltage (Max.)<br>(IF=50mA)                            | $V_{\mathrm{F}}$ | 2.8                | V    |
| Reverse Current (Max.)<br>(VR=5V)                              | IR               | 10                 | uA   |
| Wavelength Of Peak<br>Emission (Typ.)<br>(IF=50mA)             | λΡ               | 590                | nm   |
| Wavelength Of Dominant<br>Emission (Typ.)<br>(IF=50mA)         | λ D              | 589                | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ)<br>(IF=50mA) | Δλ               | 20                 | nm   |
| Capacitance (Typ.)<br>(VF=0V, f=1MHz)                          | С                | 45                 | pF   |

| Part<br>Number      | Emitting<br>Color | Emitting<br>Material | Lens-color  | Luminous<br>Intensity<br>(IF=50mA)<br>mcd |                   | Viewing<br>Angle<br>2 0 1/2 |
|---------------------|-------------------|----------------------|-------------|---|-------------------|-----------------------------|
|                     |                   |                      |             | min.                                      | typ.              |                             |
| XZM2ACY96W          | Yellow            | AlInGaP              | Water Clear | 650                                       | 1395              | 120°                        |
| Published Date : DE | C 23 ,2008        | Drawing No : X       | XDSB2653    | V2  | Checked : B.L.LIU | P. 1/4                      |

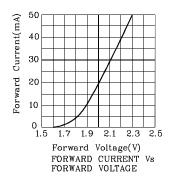


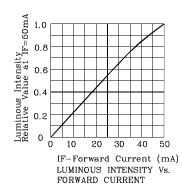
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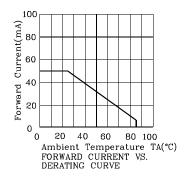


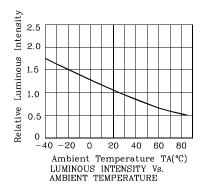
RELATIVE INTENSITY Vs. WAVELENGTH

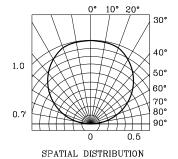
## **❖** M2ACY











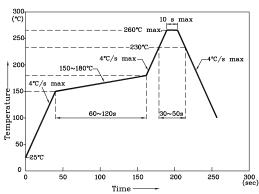
Published Date : DEC 23 ,2008 Drawing No : XDSB2653 V2 Checked : B.L.LIU P. 2/4



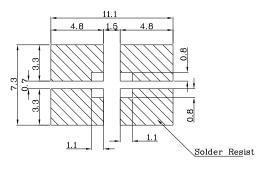
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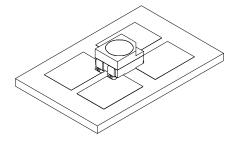
Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

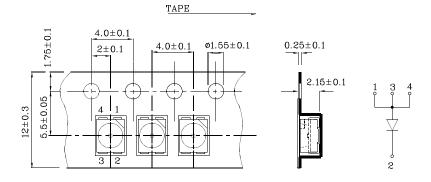


- NOTES:
  1. Maximum soldering temperature should not exceed 260°c.
  - 2. Recommended reflow temperature: 145°c-260°c.
  - $3.\ \mbox{Do not}$  put stress to the epoxy resin during high temperatures conditions.
- **❖** Recommended Soldering Pattern (Units: mm; Tolerance: ±0.1)
- ❖ The device has a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

Note: Accuracy may depend on the sorting parameters.

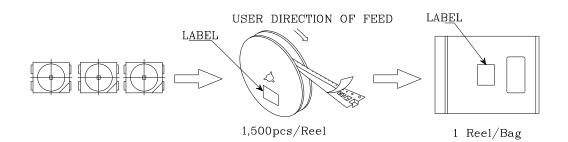
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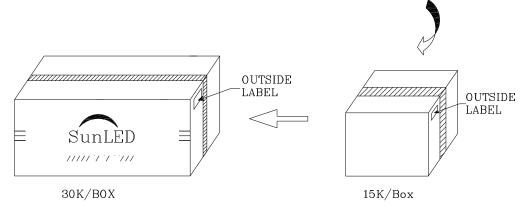


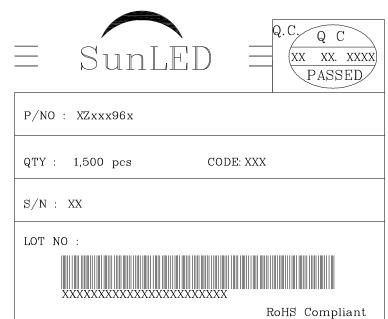
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# PACKING & LABEL SPECIFICATIONS

## XZM2ACY96W







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