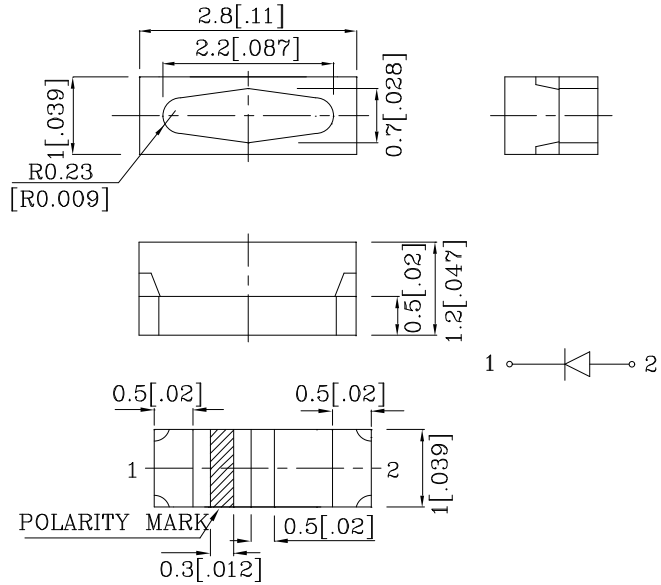


PRELIMINARY SPEC

**Features**

- 2.8mmx1.0mm right angle SMT LED, 1.2mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 4.
- RoHS compliant.



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

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.

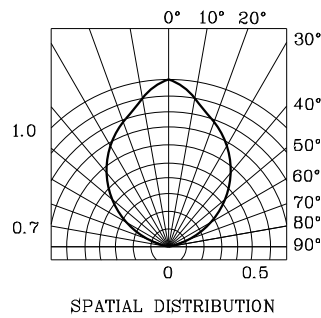
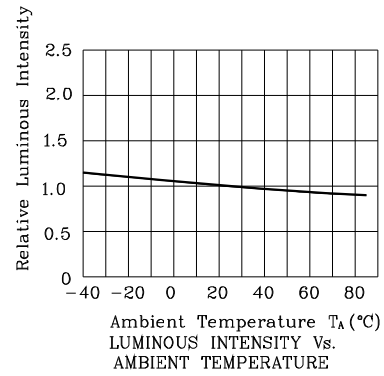
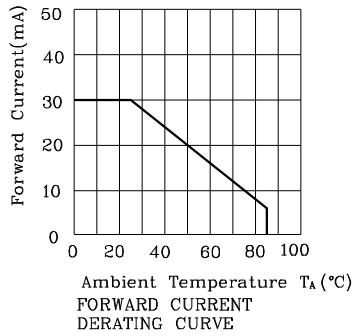
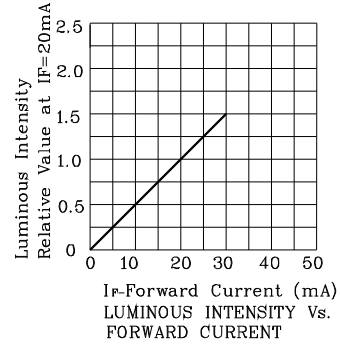
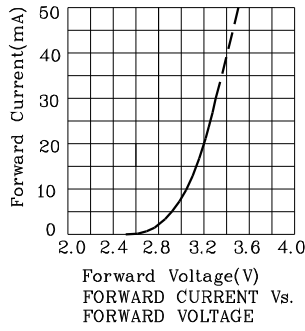
| Absolute Maximum Ratings<br>(TA=25°C)                          |      | NWA<br>(InGaN) | Unit |
|--|------|----------------|------|
| Reverse Voltage  | VR   | 5              | V    |
| Forward Current  | IF   | 30             | mA   |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | iFS  | 100            | mA   |
| Power Dissipation  | PT   | 120            | mW   |
| Operating Temperature  | TA   | -40 ~ +85      | °C   |
| Storage Temperature  | Tstg | -40 ~ +85      |      |
| Electrostatic Discharge Threshold<br>(HBM)                     |      | 1000           | V    |

| Operating Characteristics<br>(TA=25°C) |    | NWA<br>(InGaN) | Unit |
|--|----|----------------|------|
| Forward Voltage (Typ.)<br>(IF=20mA)    | VF | 3.2            | V    |
| Forward Voltage (Max.)<br>(IF=20mA)    | VF | 4.0            | V    |
| Reverse Current (Max.)<br>(VR=5V)      | IR | 10             | uA   |
| Chromaticity Coordinates<br>(Typ.)     | X  | 0.31           |      |
|  | Y  | 0.31           |      |
| Capacitance (Typ.)<br>(VF=0V, f=1MHz)  | C  | 100            | pF   |

| Part Number | Emitting Color | Emitting Material | Lens-color  | Luminous Intensity<br>(IF=20mA)<br>mcd |      | Viewing Angle<br>2θ 1/2 |
|-------------|----------------|-------------------|-------------|--|------|-------------------------|
|             |                |                   |             | min.                                   | typ. |                         |
| XZNWA81W-1  | White          | InGaN             | Water Clear | 70                                     | 198  | 90°                     |

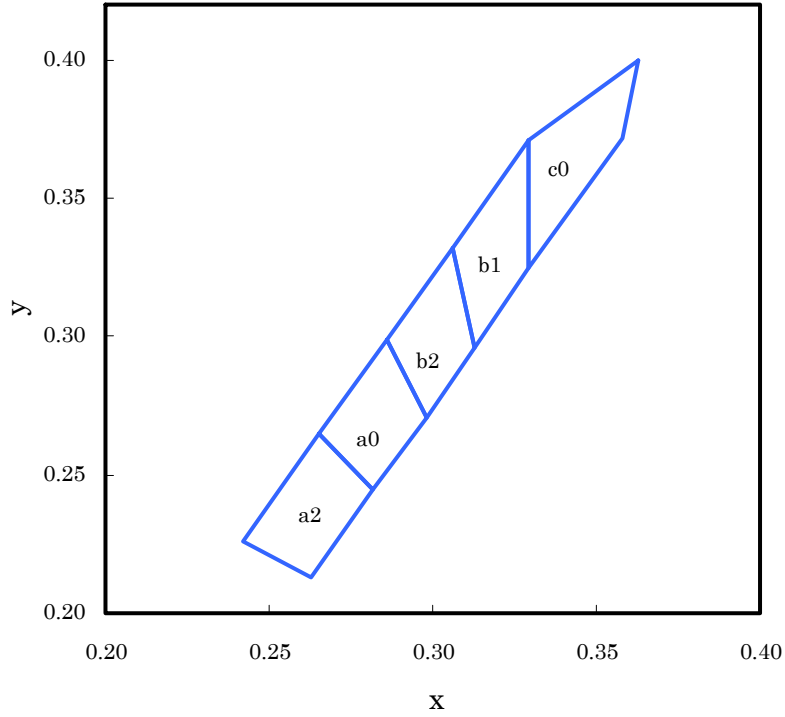


❖ NWA



XZNSA81W-1

White CIE



| Rank a2 |       |       |       |       |
|---------|-------|-------|-------|-------|
| X       | 0.263 | 0.282 | 0.265 | 0.242 |
| Y       | 0.213 | 0.245 | 0.265 | 0.226 |

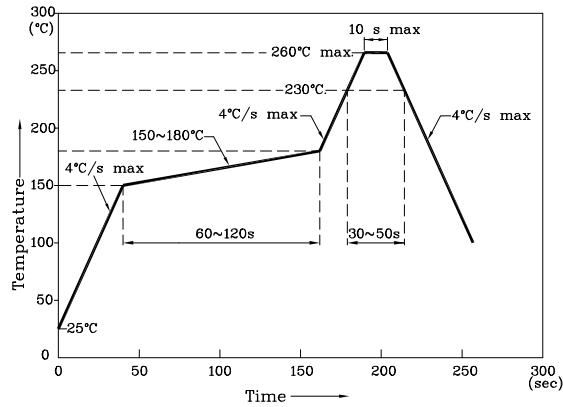
| Rank a0 |       |       |       |       |
|---------|-------|-------|-------|-------|
| X       | 0.282 | 0.298 | 0.286 | 0.265 |
| Y       | 0.245 | 0.271 | 0.299 | 0.265 |

| Rank b2 |       |       |       |       |
|---------|-------|-------|-------|-------|
| X       | 0.298 | 0.313 | 0.306 | 0.286 |
| Y       | 0.271 | 0.296 | 0.332 | 0.299 |

| Rank b1 |       |       |       |       |
|---------|-------|-------|-------|-------|
| X       | 0.313 | 0.329 | 0.329 | 0.306 |
| Y       | 0.296 | 0.325 | 0.371 | 0.332 |

| Rank c0 |       |       |       |       |
|---------|-------|-------|-------|-------|
| X       | 0.329 | 0.358 | 0.363 | 0.329 |
| Y       | 0.325 | 0.372 | 0.400 | 0.371 |

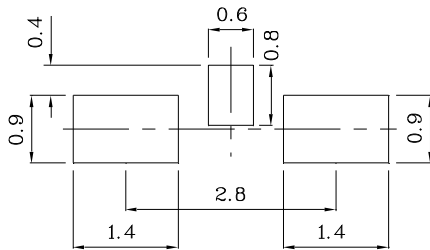
Reflow Soldering Profile For Lead-free SMT Process.



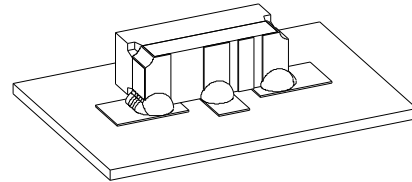
NOTES:

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.

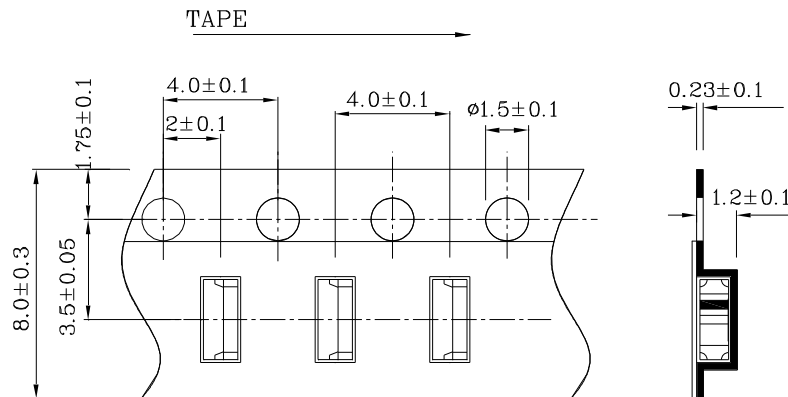
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

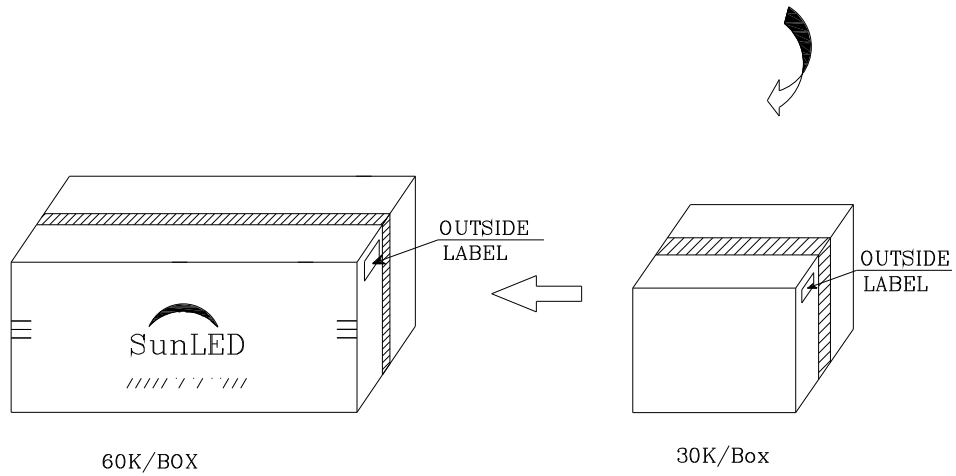
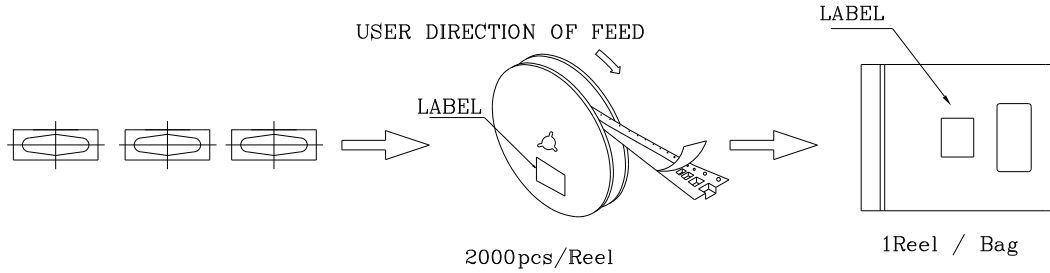
If special sorting is required (e.g. binning based on forward voltage, luminous intensity/ luminous flux or chromaticity), the typical accuracy of the sorting process is as follows:


1. Measurement tolerance of the chromaticity coordinates is ±0.01.
2. Luminous Intensity/ Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

**PACKING & LABEL SPECIFICATIONS**

**XZNA81W-1**






Q.C

q c

XX XX XXXX

PASSED

|  |           |
|--|-----------|
| P/NO : XZxx81x-1   |           |
| QTY : 2000 pcs   | CODE: XXX |
| S/N : XX   |           |
| LOT NO:  |           |
| <br>xxxxxxxxxxxxxxxxxxxxxxxx |           |
| RoHS Compliant   |           |