



 $4.0\mathrm{x}4.0\mathrm{mm}$ RIGHT ANGLE 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: 500PCS / 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 (TA=25°C) | | M2BB (InGaN) | Unit | |
|--|------|-----------------|------|--|
| Reverse Voltage | VR | 5 | V | |
| Forward Current | IF | 30 | mA | |
| Forward Current (peak) 1/10 Duty Cycle 0.1ms Pulse Width | ifS | 100 | mA | |
| Power Dissipation | Рт | 111 | mW | |
| Operating Temperature TA | | -40 ~ +85 | 0.0 | |
| Storage Temperature | Tstg | -40 ~ +85 | °C | |
| Electrostatic Discharge Thr (HBM) | 1000 | V | | |

| | 4[.157] | |
|---------------|---------------------------------------|------------|
| POLARITY MARK | 4[.055] 8.9 R11 7 8.9 R11 7 8.9 | |
| 2 | .4[.094] | |
| CATHODE | ANODE [1[.04]] | 2.85[.112] |

2.54[.1] SPACING

| Operating Characteristics (TA=25°C) | | M2BB (InGaN) | Unit |
|---|-----|-----------------|------|
| Forward Voltage (Typ.) (IF=20mA) | VF | 3.2 | V |
| Forward Voltage (Max.) (IF=20mA) | VF | 3.7 | V |
| Reverse Current (Max.) (VR=5V) | IR | 10 | uA |
| Wavelength of Peak Emission (Typ.) (IF=20mA) | λΡ | 458 | nm |
| Wavelength of Dominant Emission (Typ.) (IF=20mA) | λ D | 465 | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA) | Δλ | 22 | nm |
| Capacitance (Typ.) (VF=0V, f=1MHz) | С | 110 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity (IF=20mA) mcd | | Wavelength nm λ P | Viewing Angle 2 θ 1/2 |
|------------------|-------------------|----------------------|----------------|---|---------|-------------------------|-----------------------------|
| | | | | min. | typ. | | |
| ZM2BB67S | Blue | InGaN | Water Clear | 110 | 278 | 458 | 120° |
| Published Date : | FEB 27,2008 | Drawing | g No :SDSA6298 | V1 | Checked | : B.L.LIU | P.1/5 |



4.0x4.0mm RIGHT ANGLE SURFACE MOUNT

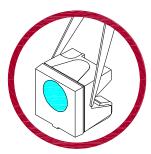
LED LAMP

Handling Precautions

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might leads to damage and premature failure of the LED.

1. Handle the component along the side surfaces by using forceps or appropriate tools.



2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.

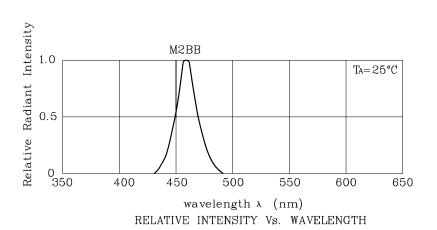




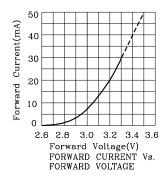
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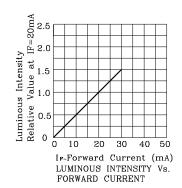


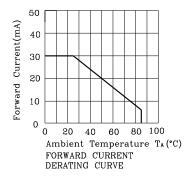
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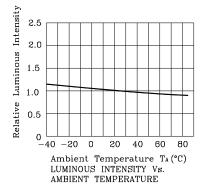


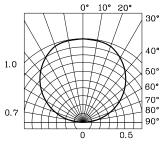
❖ M2BB











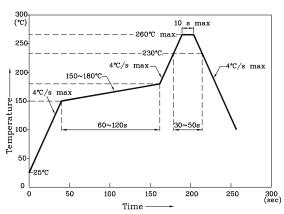
SPATIAL DISTRIBUTION



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Reflow Soldering Profile For Lead-free SMT Process.

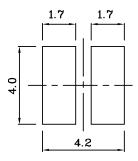


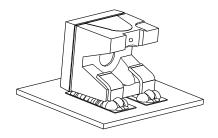
NOTES:

- 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)

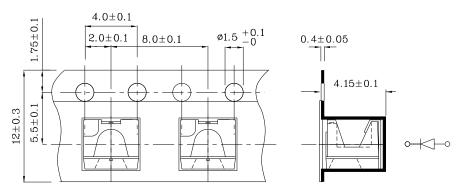
❖ The device has a single mounting surface. The device must be mounted according to the specifications.





❖ 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: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

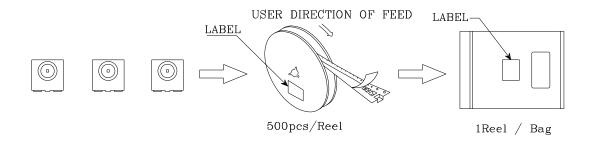


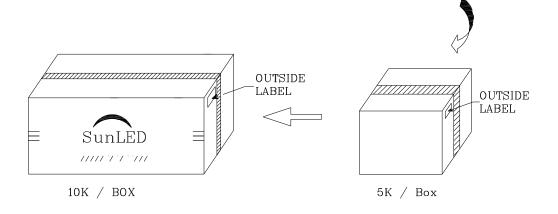
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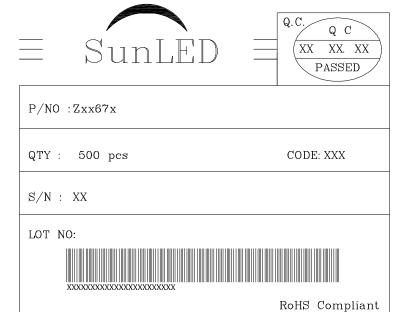
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PACKING & LABEL SPECIFICATIONS

ZM2BB67S







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