



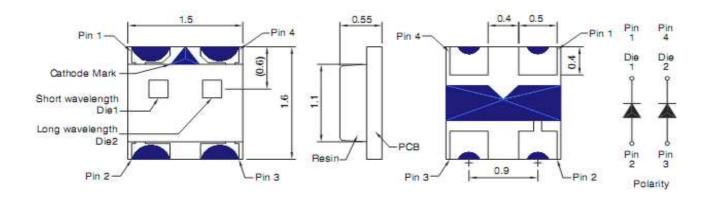




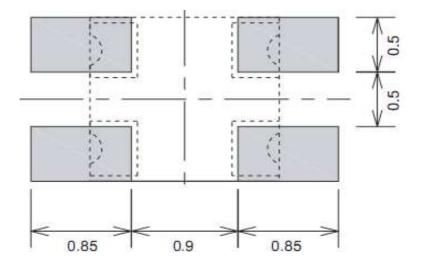
Applications

- Interior automotive lighting
 - Optical indicators
- Communication Products
 - Backlighting
 - Toys

Technical Drawing



Recommended Soldering Pattern



Notes:

All dimensions in mm tolerance is

± 0.1mm unless otherwise noted.

SMT Top View LED Yellow Green Blue

Part No.: **M11B3002**

Customer:

| DRW: | Wang | CHKD | Wung | MATL: | Chui | DATE | 03.12.2009 |
|-------|------|------|------|--------|------|-------|------------|
| APPD: | Ping | | | FINISH | Dia | Sheet | 1 from 9 |









Absolute Maximum Ratings

Ta=25°C

| Item | Symbol | AllnGaP | InGaP | Unit |
|------------------------|-------------------|---------|-------|------|
| Power Dissipation | P_{D} | 72 | 78 | mW |
| DC Forward Current | I _F | 30 | 20 | mA |
| Plused Forward Current | I _{FP} * | 100 | 80 | mA |
| Reverse Voltage | V_R | į | V | |
| Operating Temperature | T _{OP} | -30 t | °C | |
| Storage Temperature | T_{ST} | -40 t | to 85 | °C |

^{* 0.1} msec pulse, 10% duty cycle

Electrcal / Optical Characteristics

I_F=20mA Ta=25°C

| Ermitting Color | | Yellow Green | Blue | | | |
|----------------------|-------|--------------|------------|---------|--|--|
| Material | | AllnGaP | InGaP | | | |
| Forward Voltage | typ. | 1.9 | 3.3 | V_{F} | | |
| Forward Voltage | max. | 2.4 | 3.9 | V_{F} | | |
| Wavelength | λD | 573 | 470 | nm | | |
| | λP | 574 | 468 | nm | | |
| typ. | Δλ | 20 | 40 | nm | | |
| Color Temperature | min. | | | K | | |
| Color remperature | max. | | | K | | |
| Luminous Intensity * | min. | 40 | 40 | mcd | | |
| Lummous intensity | typ. | 60 | 50 | mcd | | |
| Reverse Current | max. | | | μA | | |
| Viewing Angle | 2Θ1/2 | x = 1 | 40 y = 120 | · | | |

^{*} Per NIST standards

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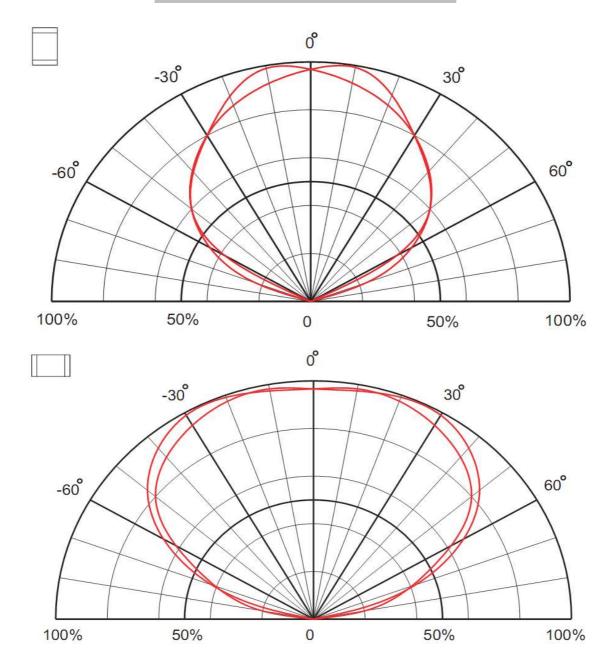
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Directive Characteristics



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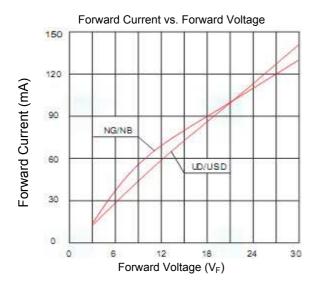


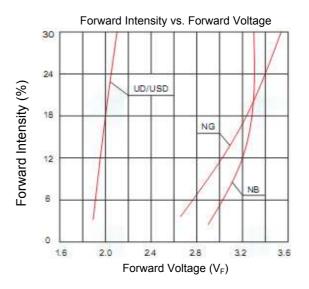


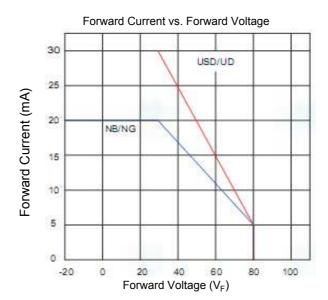




Curvs







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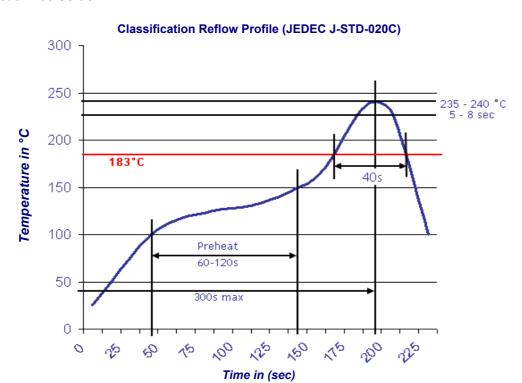






Solder Condition

Lead Free Solder



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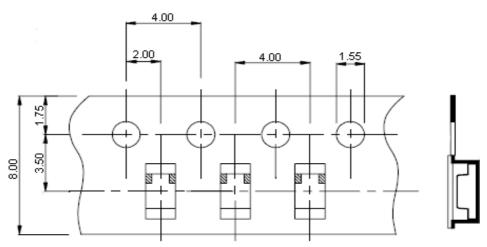
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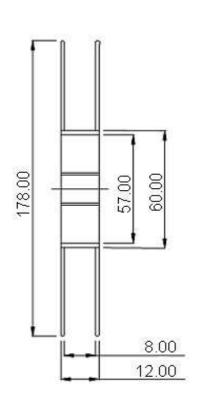


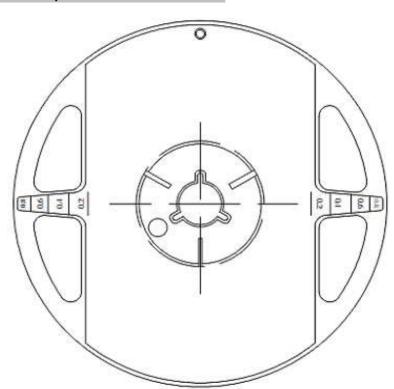


Packing Specifications



Reel Specifications





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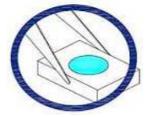




Handling Precautions

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although ist 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 th 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 surfance. It may damage the internal circuitry.





3. Do not stack together assembled PCBs containing exposed LEDs. Outside impact may scratch the silicone lens or damage the internal circuitry.



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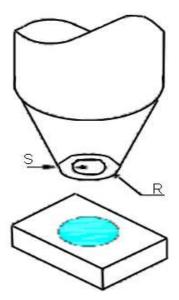
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| APPD: | Ping | | | FINISH | Dia | Sheet | 7 from 9 |







- 4. The outer diameter of the TOP LED pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
- 5. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
- 6. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.



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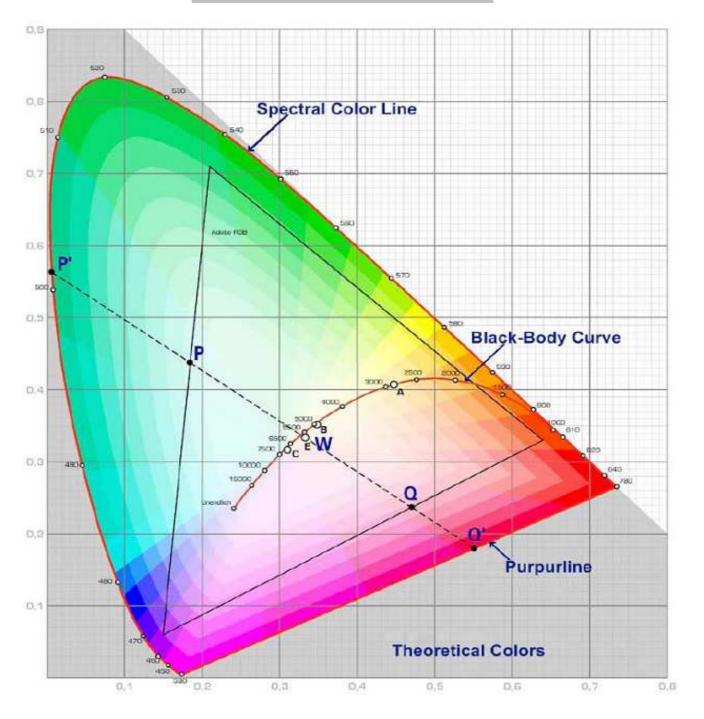
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Color table curve



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