

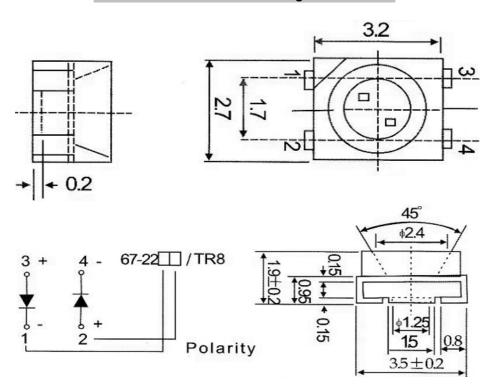




## **Applications**

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

### **Technical Drawing**



# **Recommended Soldering Pattern**

#### Notes:

All dimensions in mm tolerance is  $\pm 0.1$ mm unless otherwise noted.

SMT	Top	View	LE	D
Red				White

Part No.: **M11A3005** 

Customer:

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	03.05.2010
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# **Absolute Maximum Ratings**

Ta=25°C

Item	Symbol	Red	White	Unit	
Power Dissipation	$P_{D}$	70	90	mW	
DC Forward Current	I <sub>F</sub>	30	30	mA	
Plused Forward Current	I <sub>FP</sub> *	70	100	mA	
Reverse Voltage	$V_R$	;	V		
Operating Temperature	erating Temperature T <sub>OP</sub>		-30°C ~ 85°C		
Storage Temperature	T <sub>ST</sub>	-40°C	~ 90°C	°C	

<sup>\* 0.1</sup> msec pulse, 10% duty cycle

# **Electrcal / Optical Characteristics**

I<sub>F</sub>=20mA Ta=25°C

Ermitting Color		Red	White	
Material				
Forward Voltage	typ.			$V_{F}$
Forward voilage	max.	2.6	3.6	$V_{F}$
Wavelength	λD	624	x = 0.42 y = 0.43	nm
_	λP	630		nm
typ.	Δλ	20		nm
Color Temperature	min.			K
Color reiliperature	max.			K
Luminous Intensity *	min.			mcd
Lummous intensity	typ.	200	1000	mcd
Reverse Current	max.	c. 10		
Viewing Angle	2Θ1/2		120	·

<sup>\*</sup> Per NIST standards

SMT Top View LED
Red White

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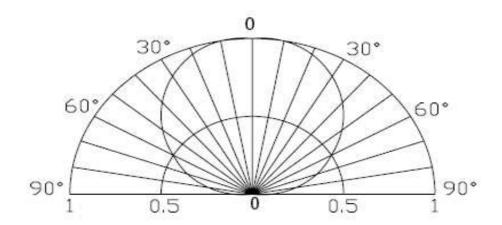
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## **Directive Characteristics**



SMT Top View LED
Red White

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SMT Top View LED
Red White

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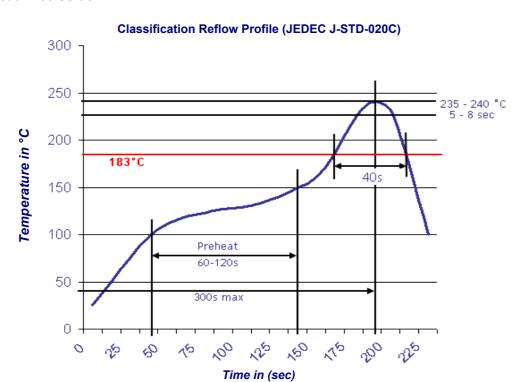






## **Solder Condition**

#### Lead Free Solder



SMT Top View LED
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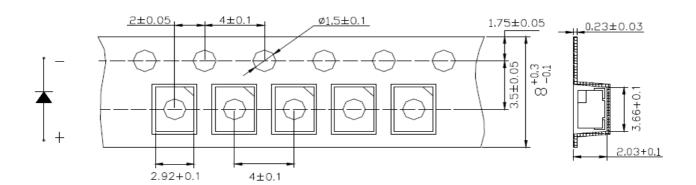
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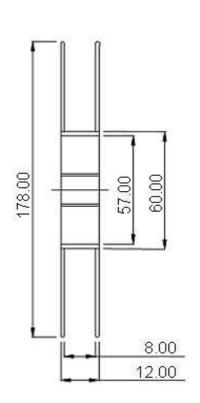


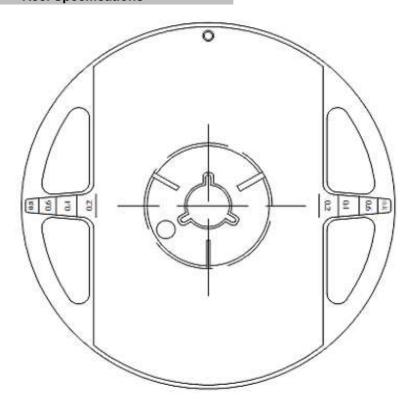


# **Packing Specifications**



# **Reel Specifications**





# SMT Top View LED Red White

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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.



# SMT Top View LED Red White

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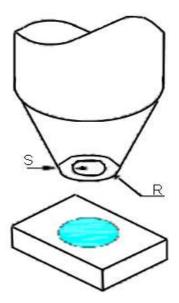
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- 4. The outer diameter of the TOP LED pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
- 5. A pliable material is suggested for the nozzle tip to avoid scratching 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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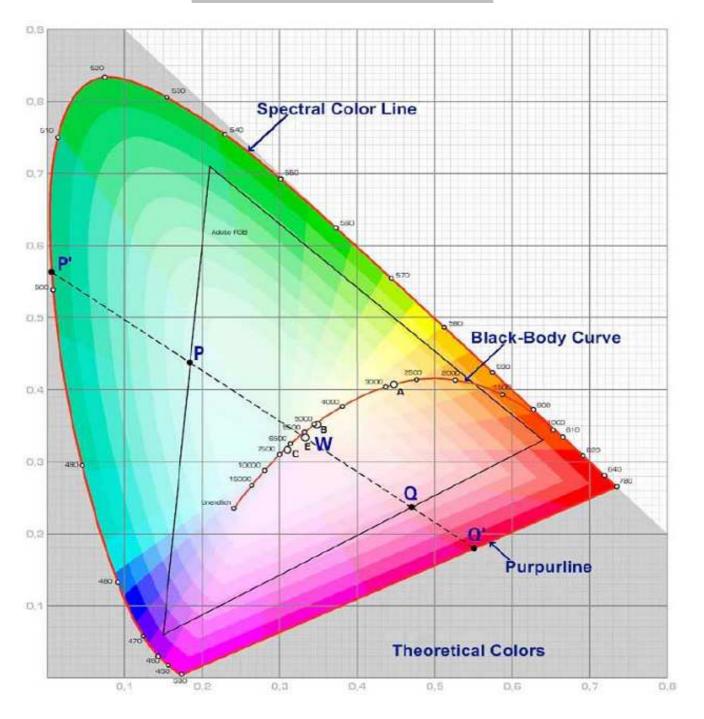
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## Color table curve



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