

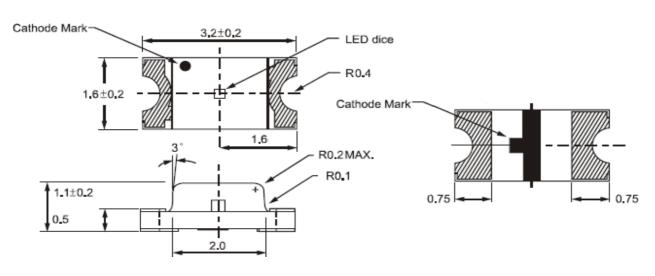


### Applications

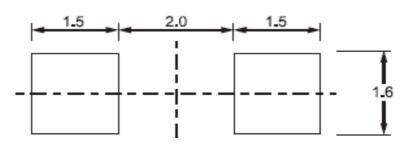
Interior automotive lighting

 Optical indicators
 Communication Products
 Backlighting
 Toys

### **Technical Drawing**



## **Recommended Soldering Pattern**



<b>Notes :</b> All dimensions in mm tolerance is ± 0.1mm unless otherwise noted.						SMT Chip LED Amber	)
					Part No.: <b>M11F6013</b>		
					Custome	er:	
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	05.12.2009
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# Absolute Maximum Ratings

Ta=25°C

Item	Symbol	GaAsP / GaP	Unit
Power Dissipation	PD		mW
DC Forward Current	I <sub>F</sub>	30	mA
Plused Forward Current	I <sub>FP</sub> *	100	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>OP</sub>	-25 to 80	°C
Storage Temperature	T <sub>ST</sub>	-30 to 85	°C

\* 0.1 msec pulse, 10% duty cycle

Electrcal / Optical Characteristics

I<sub>F</sub>=20mA Ta=25°C

Ermitting Color		Amber				
Material	GaAsP / GaP					
Forward Voltage	typ.	2.2	V <sub>F</sub>			
r orward voltage	max.	2.6	V <sub>F</sub>			
Wavelength	λD	610	nm			
	λP	610	nm			
typ.	Δλ		nm			
Color Temperature	min.		K			
	max.		K			
Luminous Intensity *	min.	2.4	mcd			
Lumnous intensity	typ.	5.0	mcd			
Reverse Current	max.		μA			
Viewing Angle	2Θ1/2	120				

\* Per NIST standards

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**Directive Characteristics** 

		SMT Chip LED Amber		
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Curvs

				SMT Chip LED Amber			
				Part No.: <b>M11F6013</b>		F6013	
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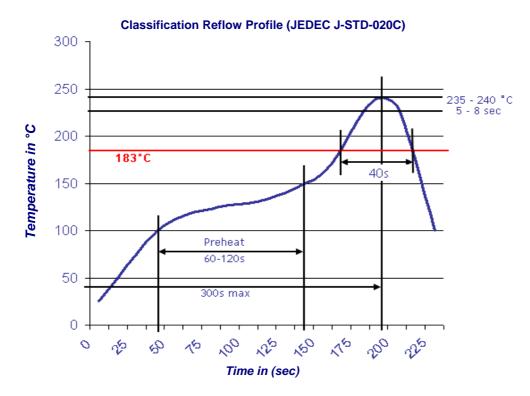
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## **Solder Condition**

## Lead Free Solder



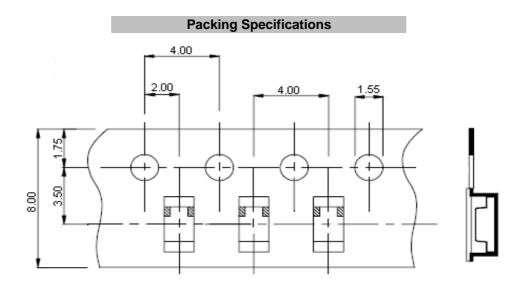
				SMT Chip LED Amber			
				Part No.: <b>M11F6013</b>		-6013	
				Custome	er:		
Dong	CHKD	Chang	MATL:	Chui	DATE	05.12.2009	
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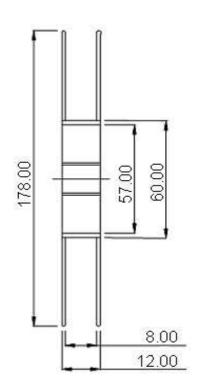
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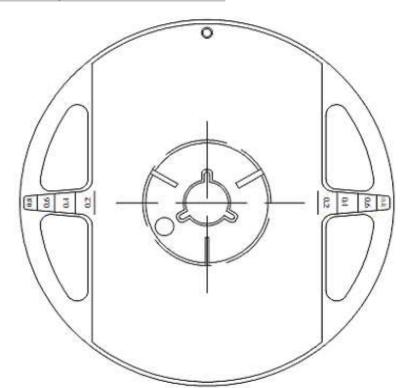






**Reel Specifications** 





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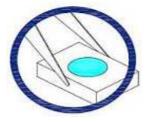




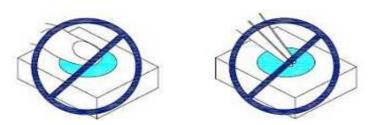
## Handling Precautions

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.

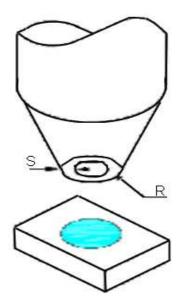


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- 4. The outer diameter of the TOP LED pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
- 5. A pliable material is suggested for the nozzle tip to avoid scratching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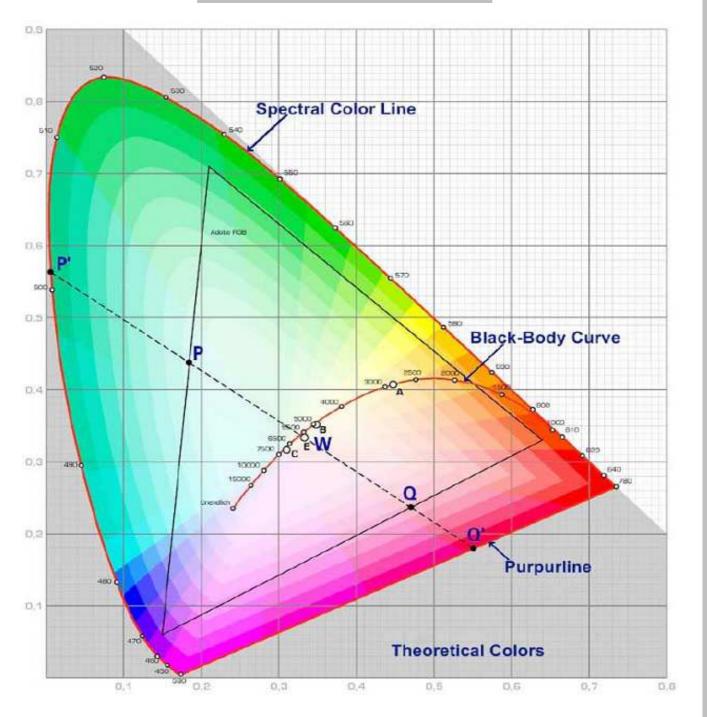
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Color table curve



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