

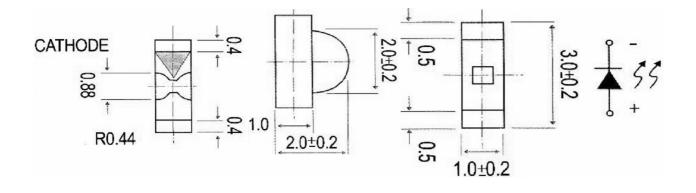


#### Applications

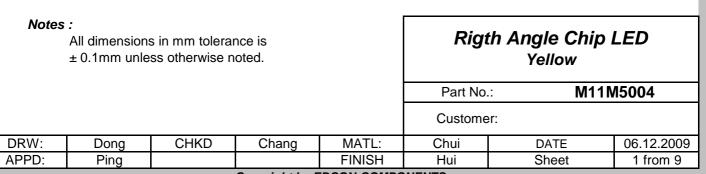
Interior automotive lighting

 Optical indicators
 Communication Products
 Backlighting
 Toys

#### **Technical Drawing**

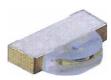


**Recommended Soldering Pattern** 



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## **Absolute Maximum Ratings**

Ta=25°C

Item	Symbol	AlGalnP	Unit
Power Dissipation	PD		mW
DC Forward Current	I <sub>F</sub>	20	mA
Plused Forward Current	I <sub>FP</sub> *		mA
Reverse Voltage	V <sub>R</sub>		V
Operating Temperature	T <sub>OP</sub>		°C
Storage Temperature	T <sub>ST</sub>	-55 to 100	°C

\* 0.1 msec pulse, 10% duty cycle

Electrcal / Optical Characteristics

I<sub>F</sub>=20mA Ta=25°C

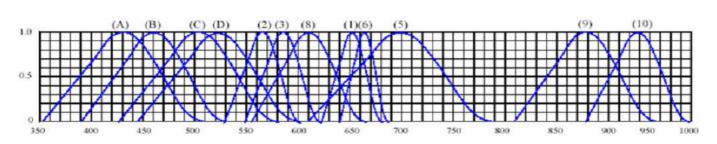
Ermitting Color		Yellow					
Material		AlGalnP					
Forward Voltage	typ.	2.0	V <sub>F</sub>				
r orward voltage	max.	2.4	V <sub>F</sub>				
Wavelength	λD	589	nm				
-	λP		nm				
typ.	Δλ		nm				
Color Temperature	min.		K				
Color remperature	max.		K				
Luminous Intensity *	min.	20	mcd				
Lumnous intensity	typ.	49	mcd				
Reverse Current	max.		μA				
Viewing Angle	201/2	120					

\* Per NIST standards

					Rigth Angle Chip LED Yellow		
					Part No.: <b>M11M5004</b>		
					Custome	r:	
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
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Curve



Wavelength (nm)

## **Relative Intensity vs Wavelength**

(1)	GaAsP / GaAs 655nm Red	(9)	GaAlAs 880nm
(2)	GaP	(10)	GaAs & GaAlAs
	568nm Yellow Green		940nm
(3)	GaAsP / GaP	(A)	GaN
	585nm Yellow		430nm Blue
(4)	GaAsP / GaP	(B)	InGaN
	635nm Orange & Red		470nm Blue
(5)	GaP	(C)	InGaN
	700nm Red		502nm Green
(6)	GaAlAs / GaAs	(D)	InGaN
	660nm Red		523nm Green
(8)	GaAsP / GaP		
. ,	610nm Red		

					Rigth Angle Chip LED Yellow		
					Part No.	: M11N	/15004
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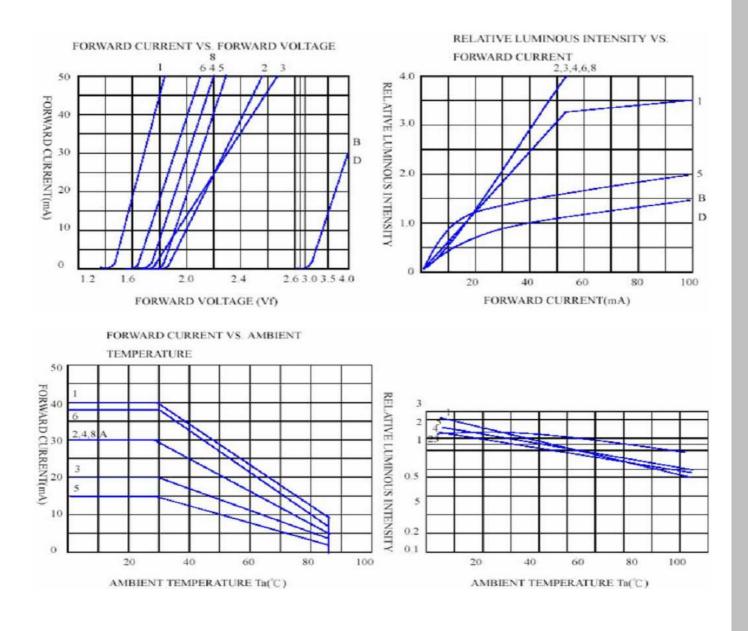
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					Rig	th Angle Chip <sub>Yellow</sub>	LED
					Part No.: <b>M11M5004</b>		M5004
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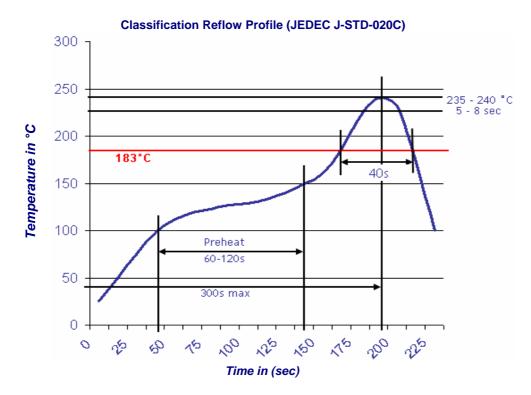
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#### **Solder Condition**

#### Lead Free Solder

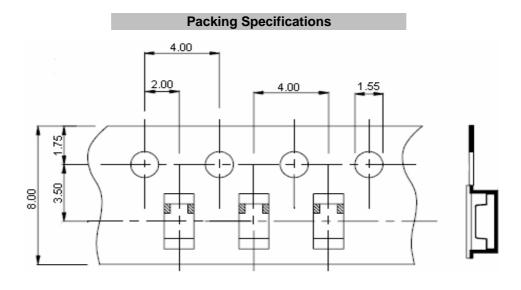


# Rigth Angle Chip LED Yellow

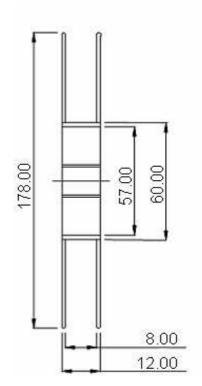
					Part No.: <b>M11M5004</b>				
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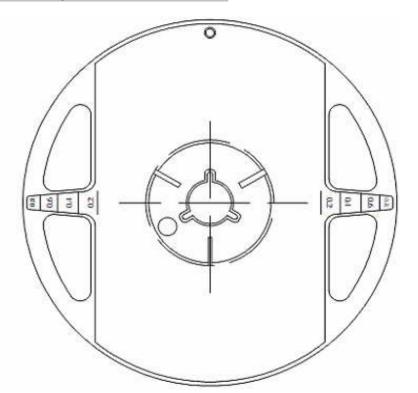






**Reel Specifications** 





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					Part No.: <b>M11M5004</b>		
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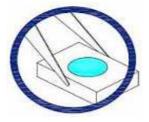




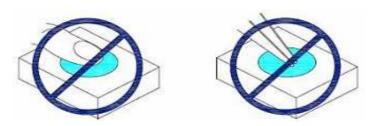
#### Handling Precautions

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.



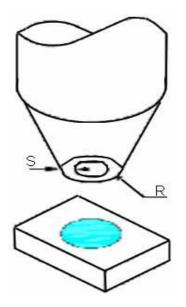
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					Part No.: <b>M11M5004</b>			
					Customer:			
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- 4. The outer diameter of the TOP LED pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle 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.



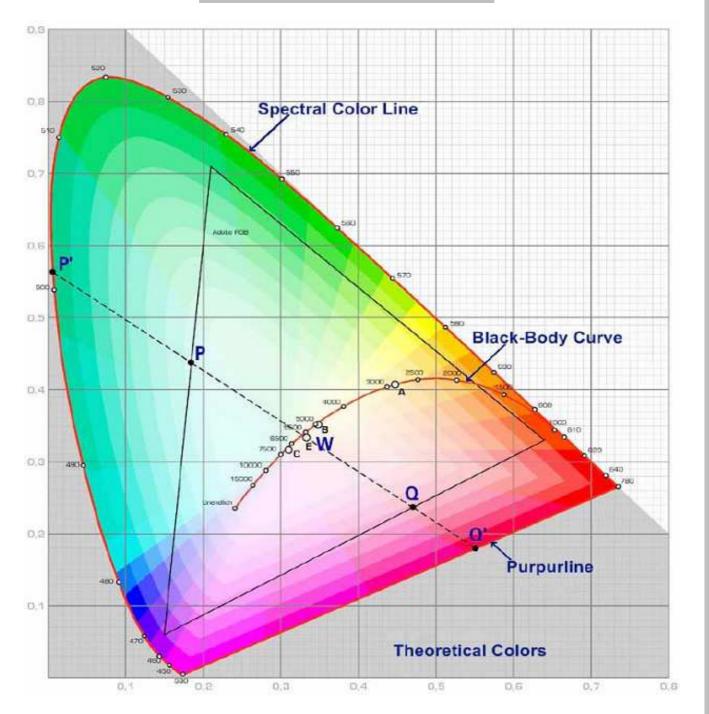
# Rigth Angle Chip LED Yellow

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Color table curve



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