



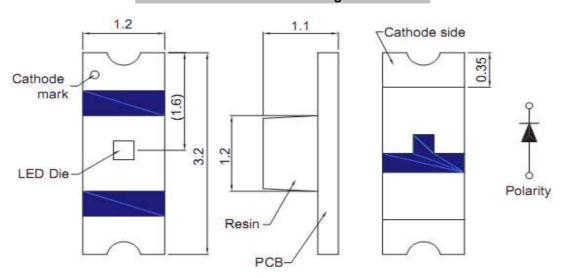




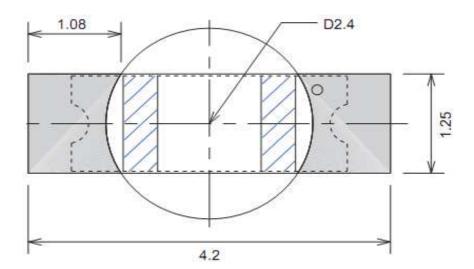
Applications

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

Technical Drawing



Recommended Soldering Pattern



Notes:

All dimensions in mm tolerance is ± 0.1 mm unless otherwise noted.

SMT Top View LED Blue

Part No.: **M11B9010**

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	InGaN	Unit
Power Dissipation	P_{D}	78	mW
DC Forward Current	I _F	20	mA
Plused Forward Current	I _{FP} *	80	mA
Reverse Voltage	V_R	5	V
Operating Temperature	T _{OP}	-30 to 80	°C
Storage Temperature	T_{ST}	-40 to 85	°C

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

Electrcal / Optical Characteristics

I_F=20mA Ta=25°C

Ermitting Color		Blue	
Material		InGaN	
Forward Voltage	typ.	3.3	V_{F}
Torward Voltage	max.	3.9	V_{F}
Wavelength	λD	470	nm
	λP	468	nm
typ.	Δλ	40	nm
Color Temperature	min.		K
Color remperature	max.		K
Luminous Intensity *	min.	35	mcd
Lummous intensity	typ.	90	mcd
Reverse Current	max.		μA
Viewing Angle	2Θ1/2	140	

^{*} Per NIST standards

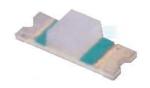
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APPD:	Ping			FINISH	Dia	Sheet	2 from 9

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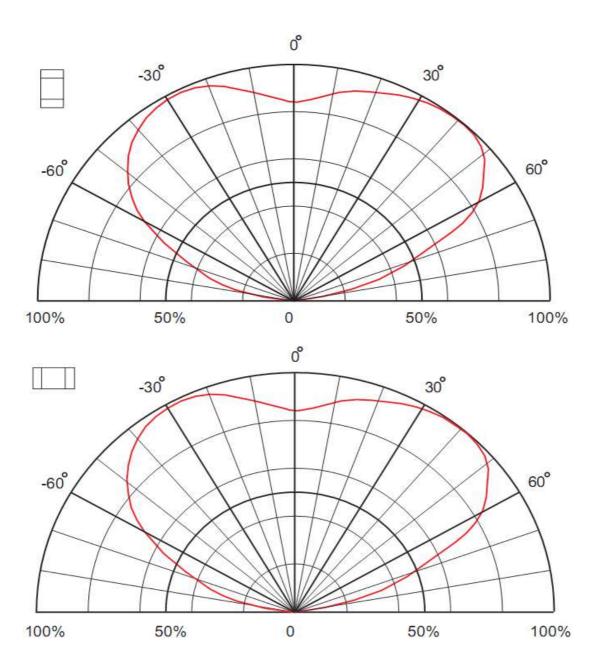








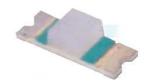
Directive Characteristics



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DRW:	Wang	CHKD	Wung	MATL:	Chui	DATE	03.12.2009
APPD:	Ping			FINISH	Dia	Sheet	3 from 9

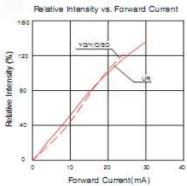


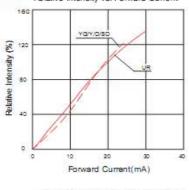


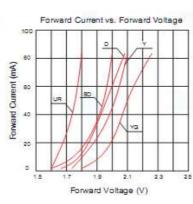


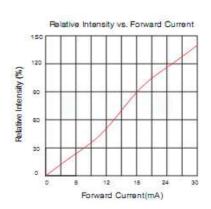


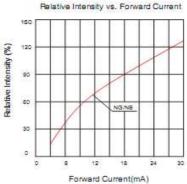
Curvs

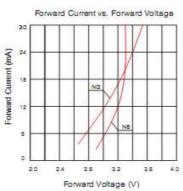


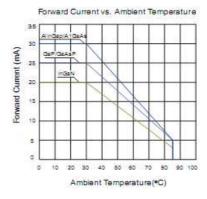


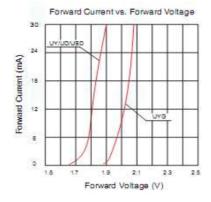








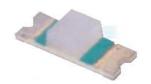




SMT Top View LED

Part No.: M11B9010

DRW:	Wang	CHKD	Wung	MATL:	Chui	DATE	03.12.2009
APPD:	Ping			FINISH	Dia	Sheet	4 from 9



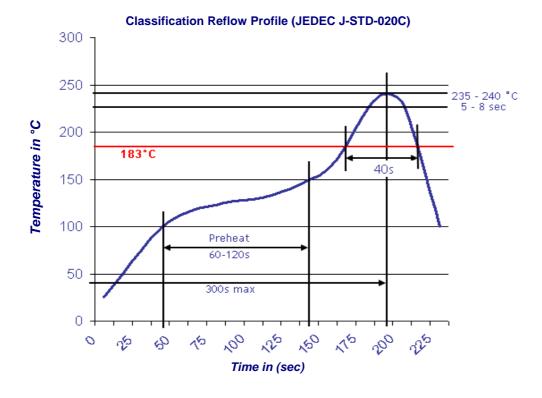






Solder Condition

Lead Free Solder



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Part No.: **M11B9010**

DRW:	Wang	CHKD	Wung	MATL:	Chui	DATE	03.12.2009
APPD:	Ping			FINISH	Dia	Sheet	5 from 9

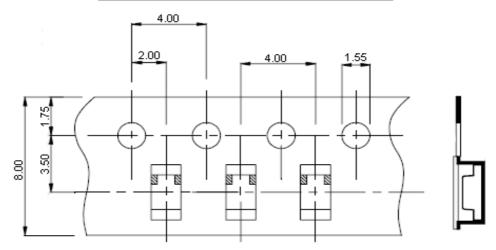




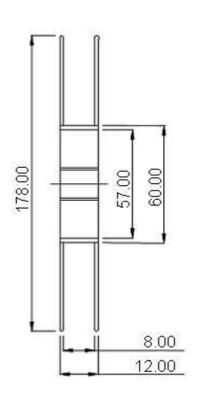


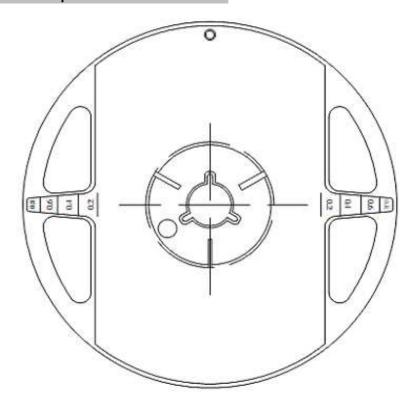


Packing Specifications



Reel Specifications





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DRW:	Wang	CHKD	Wung	MATL:	Chui	DATE	03.12.2009
APPD:	Ping			FINISH	Dia	Sheet	6 from 9





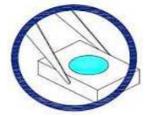




Handling Precautions

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.: **M11B9010**

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APPD:	Ping			FINISH	Dia	Sheet	7 from 9

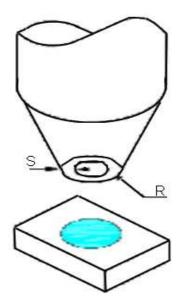








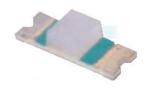
- 4. The outer diameter of the TOP LED pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
- 5. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
- 6. 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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APPD:	Ping			FINISH	Dia	Sheet	8 from 9

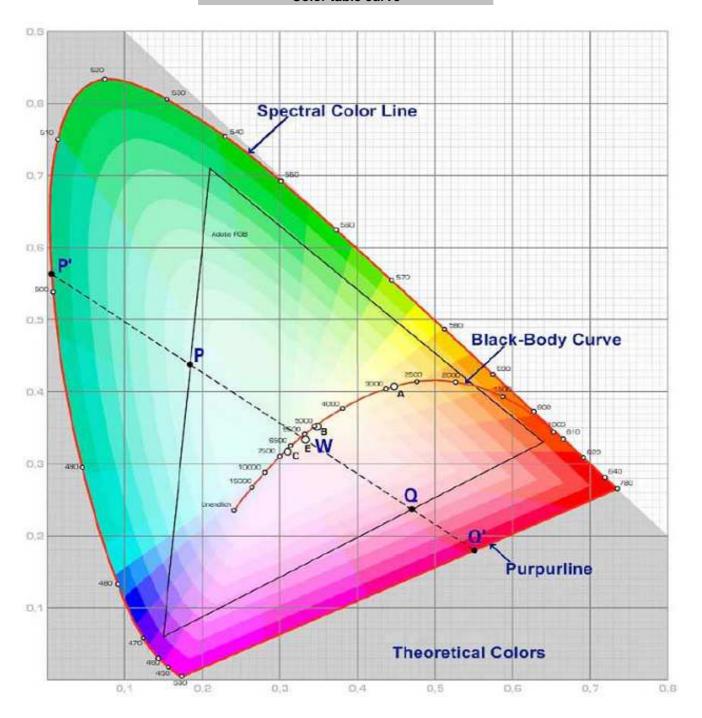








Color table curve



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APPD:	Ping			FINISH	Dia	Sheet	9 from 9