EDCON COMPONENTS
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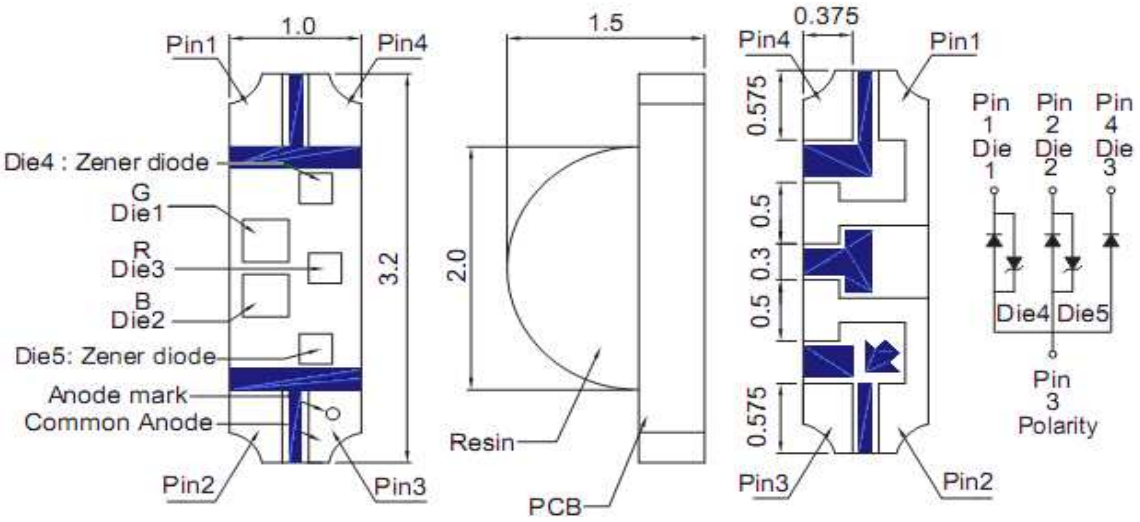
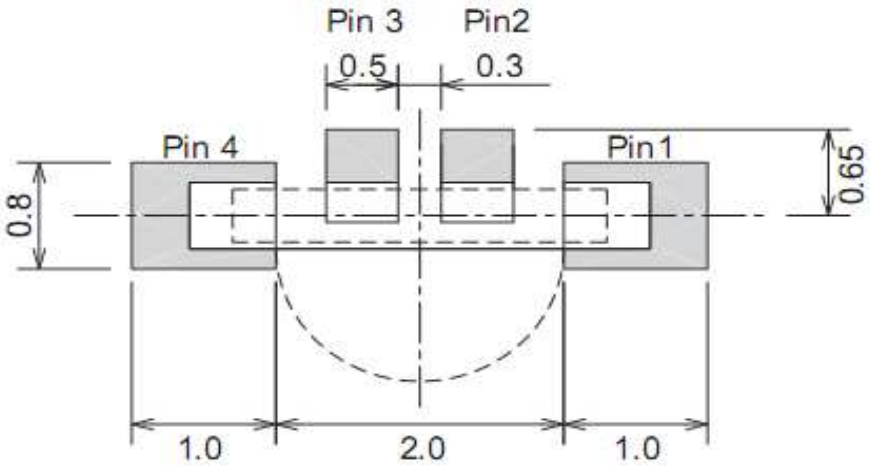
Applications

- 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

Orange ***Green*** ***Blue***

Part No.: **M11M1001**

Customer:

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
APPD:	Ping			FINISH	Hui	Sheet	1 from 9

Absolute Maximum Ratings

Ta=25°C

Item	*Symbol*	*AlInGaP*	*InGaN*	*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	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		Orange	Green	Blue	
Material		AlInGaP	InGaN	InGaN	
Forward Voltage	typ.	1.9	3.3	3.3	V_F
	max.	2.4	3.9	3.9	V_F
Wavelength typ.	λD	622	527	470	nm
	λP	636	520	468	nm
	Δλ	17	40	40	nm
Color Temperature	min.	---	---	---	K
	max.	---	---	---	K
Luminous Intensity *	min.	56	90	56	mcd
	typ.	120	200	90	mcd
Reverse Current	max.	---			μA
Viewing Angle	2Θ1/2	140			

* Per NIST standards

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APPD:	Ping			FINISH	Hui	Sheet	2 from 9

Directive Characteristics

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APPD:	Ping			FINISH	Hui	Sheet	3 from 9

Curvs

Forward Current vs. Forward Voltage

Forward Current (mA)

Forward Voltage (V_F)

Forward Intensity vs. Forward Voltage

Forward Intensity (%)

Forward Voltage (V_F)

Forward Current vs. Forward Voltage

Forward Current (mA)

Forward Voltage (V_F)

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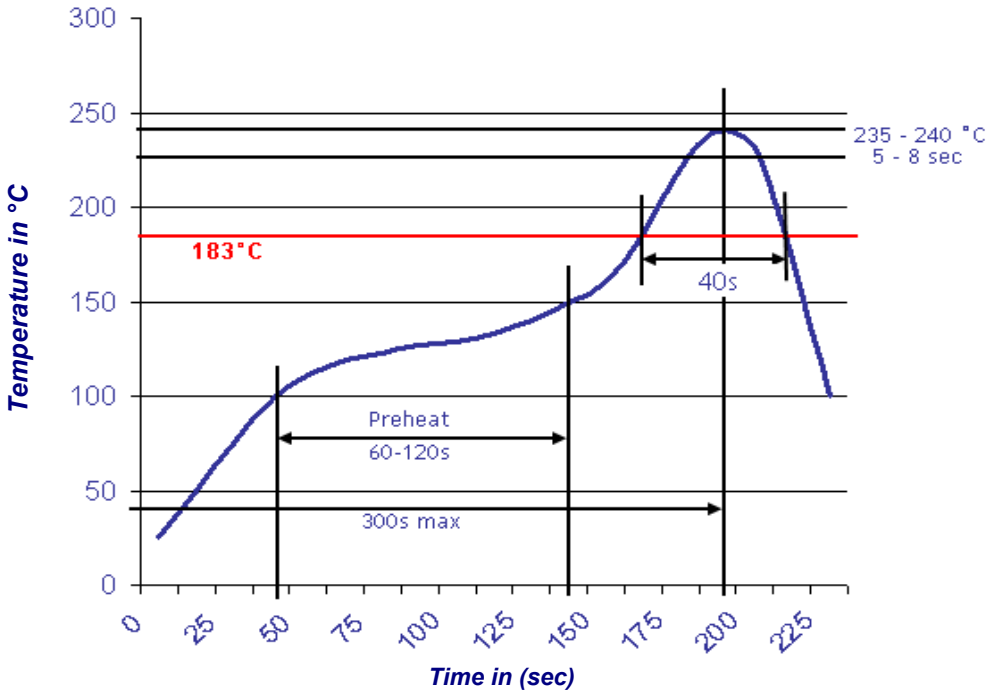
APPD:	Ping			FINISH	Hui	Sheet	4 from 9

Solder Condition

Lead Free Solder

Classification Reflow Profile (JEDEC J-STD-020C)



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APPD:	Ping			FINISH	Hui	Sheet	5 from 9

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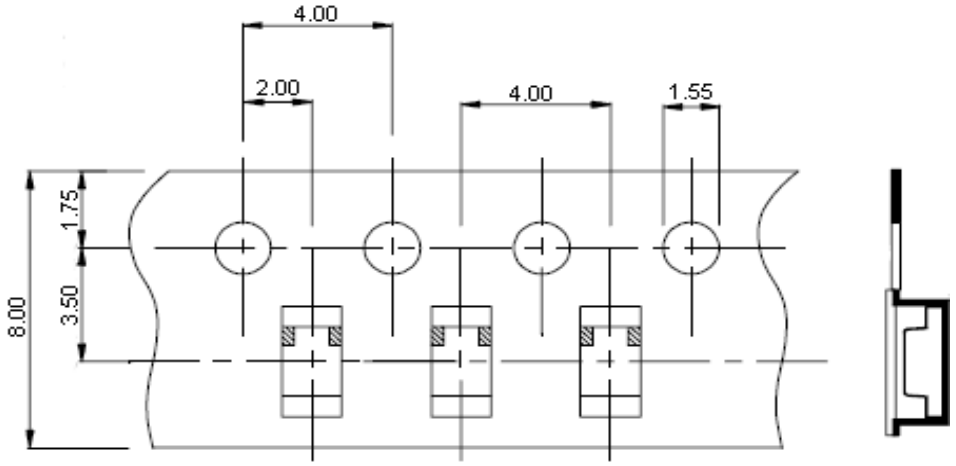
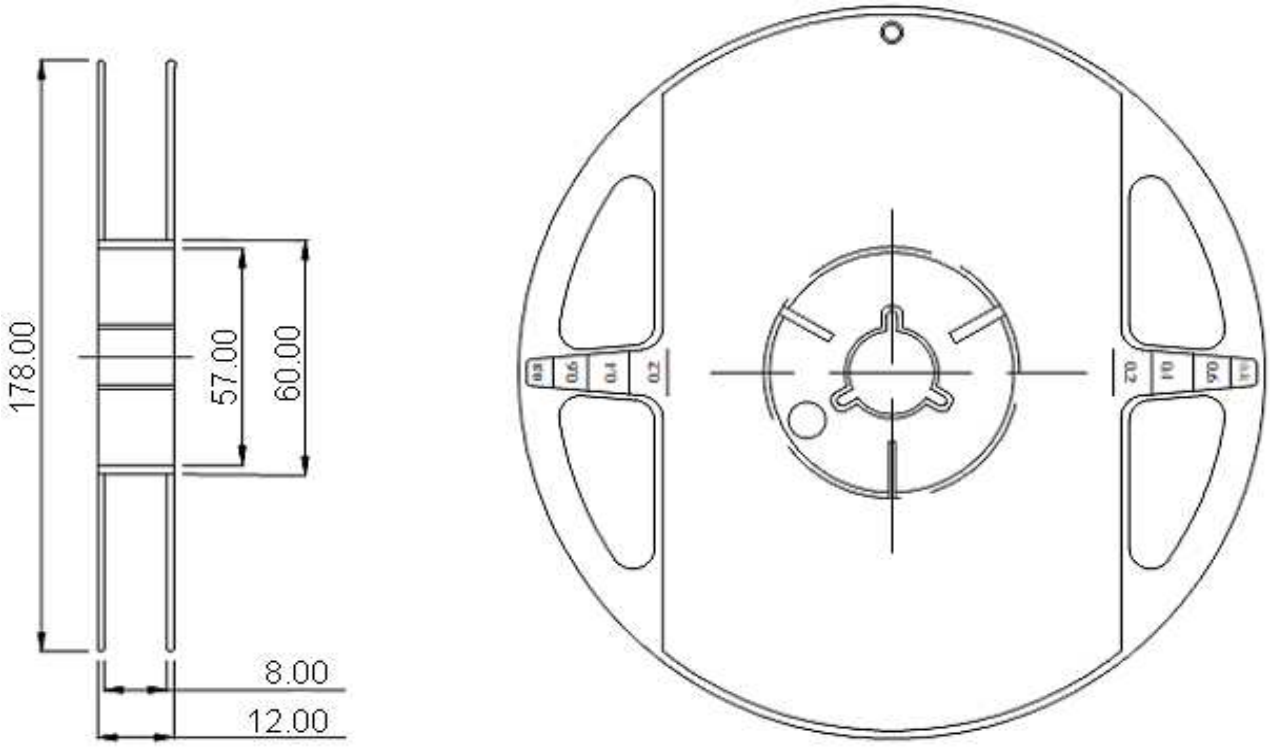
Packing Specifications



Reel Specifications



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Orange ***Green*** ***Blue***

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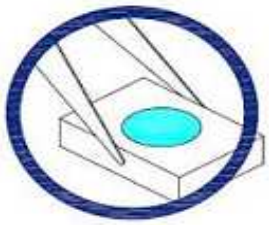
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
APPD:	Ping			FINISH	Hui	Sheet	6 from 9

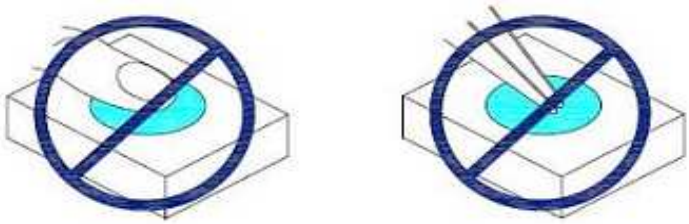
Handling Precautions

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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Orange Green Blue

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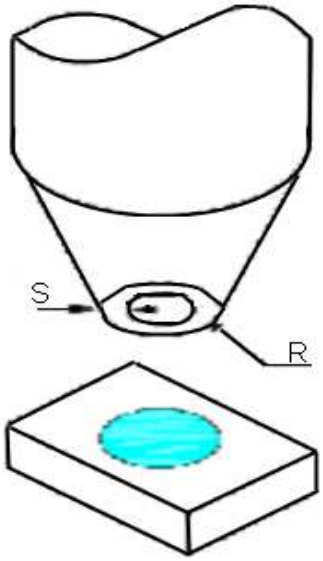
APPD:	Ping			FINISH	Hui	Sheet	7 from 9

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	Hui	Sheet	8 from 9

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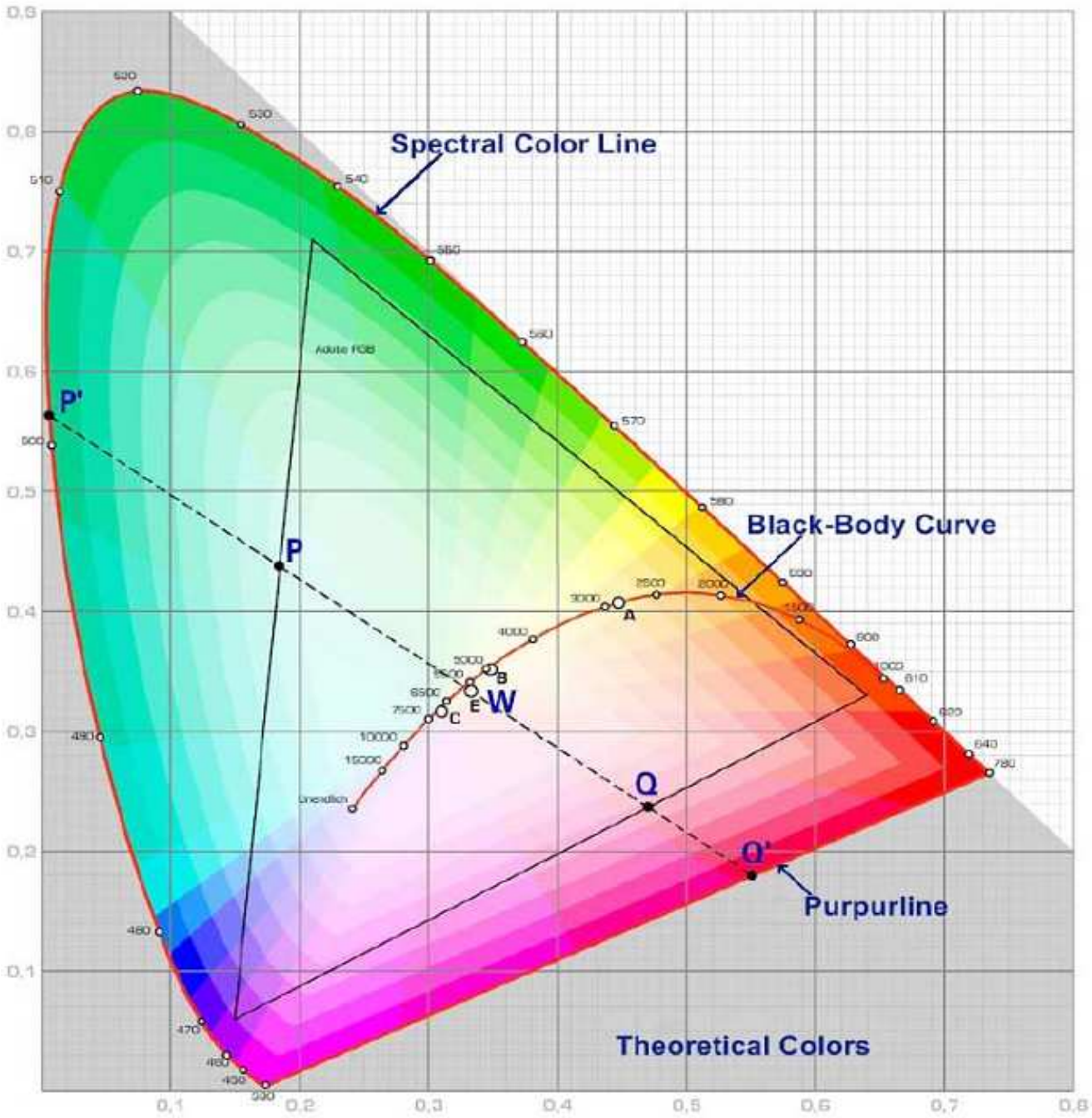
Color table curve



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APPD:	Ping			FINISH	Hui	Sheet	9 from 9