

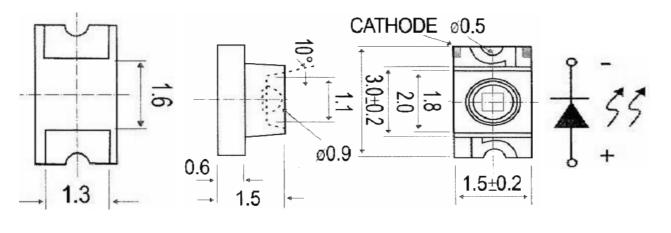


#### Applications

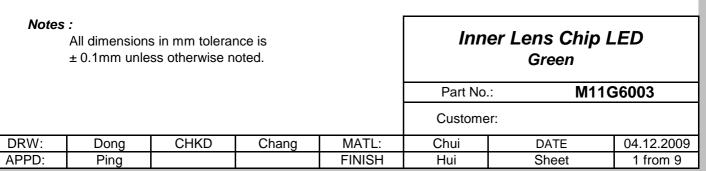
Interior automotive lighting

 Optical indicators
 Communication Products
 Backlighting
 Toys

#### **Technical Drawing**



**Recommended Soldering Pattern** 



www.edcon-components.com

Copyright by EDCON-COMPONENTS





# **Absolute Maximum Ratings**

Ta=25°C

Item	Symbol	GaP	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		Green					
Material		GaP					
Forward Voltage	typ.	2.1	V <sub>F</sub>				
r orward voltage	max.	2.4	V <sub>F</sub>				
Wavelength	λD	571	nm				
U	λP		nm				
typ.	Δλ		nm				
Color Temperature	min.		K				
Color remperature	max.		K				
Luminous Intensity *	min.	6	mcd				
Lumnous intensity	typ.	10	mcd				
Reverse Current	max.		μA				
Viewing Angle	2Θ1/2	120					

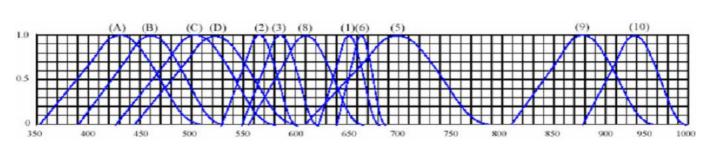
\* Per NIST standards

			Inn	er Lens Chip I Green	LED			
					Part No.: <b>M11G6003</b>			
					Custome	er:		
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009	
APPD:	Ping			FINISH	Hui	Sheet	2 from 9	
	Copyright by EDCON-COMPONENTS							





Curve



Wavelength (nm)

# **Relative Intensity vs Wavelength**

(1)	GaAsP / GaAs	(9)	GaAlAs
	655nm Red		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		

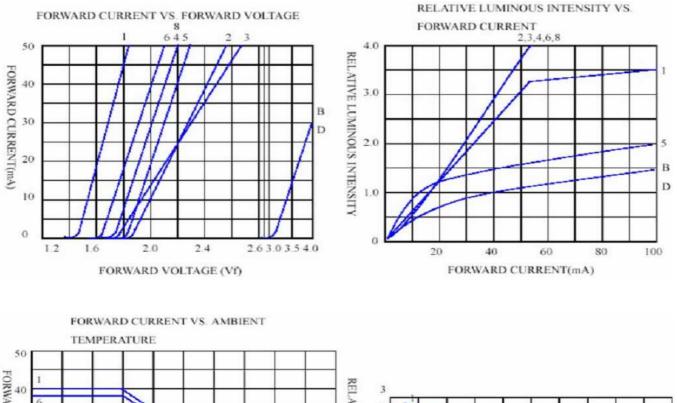
					Inner Lens Chip LED Green		
					Part No.: <b>M11G6003</b>		G6003
					Customer:		
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
APPD:	Ping			FINISH	Hui Sheet 3 fro		3 from 9

Copyright by EDCON-COMPONENTS





Curve



2,4,8 A		EL 1		-		
3		MINO 0.5	+			-
5	XX	NOUS 0.5				
	-11	INTE 5				
$\square$		ENSI 0.2				
		₹ 0.1				

					Inner Lens Chip LED Green		
					Part No.: <b>M11G6003</b>		G6003
					Custome	er:	
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
APPD:	Ping			FINISH	Hui	Sheet	4 from 9

www.edcon-components.com

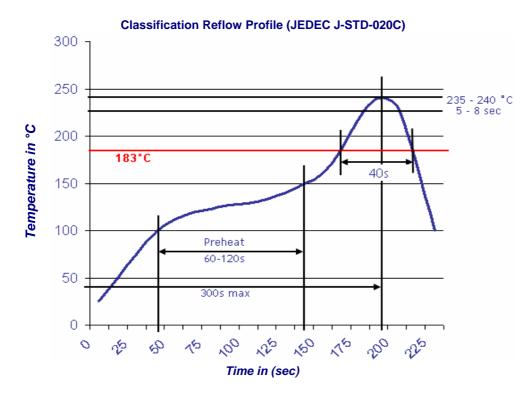
Copyright by EDCON-COMPONENTS





## **Solder Condition**

## Lead Free Solder



			Inn	er Lens Chip L Green	.ED
			Part No.: <b>M11G6003</b>		
			Customer:		
CHKD	Chang	MATL:	Chui	DATE	04.12.2009
		FINISH	Hui	Sheet	5 from 9

### www.edcon-components.com

Dong

Ping

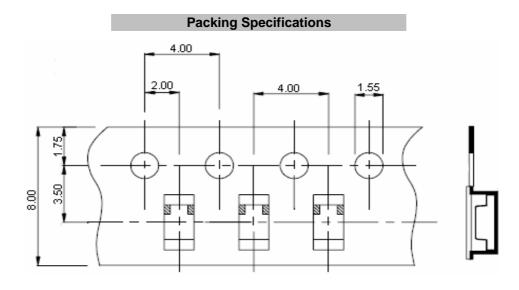
DRW:

APPD:

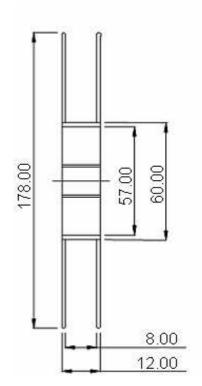
Copyright by EDCON-COMPONENTS

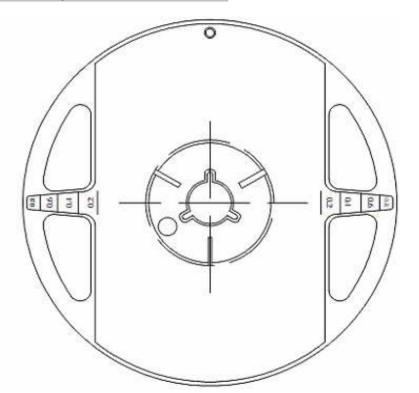






**Reel Specifications** 





					Inn	er Lens Chip L Green	.ED
					Part No.: <b>M11G6003</b>		G6003
					Customer:		
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
APPD:	Ping			FINISH	Hui	Sheet	6 from 9

www.edcon-components.com

\_\_\_\_\_

Copyright by EDCON-COMPONENTS

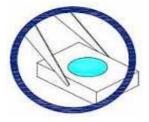




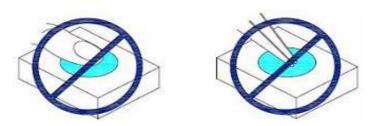
### Handling Precautions

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.



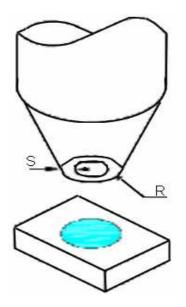
					Inne	er Lens Chip I Green	ED			
					Part No.: <b>M11G6003</b>		G6003			
					Customer:					
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009			
APPD:	Ping			FINISH	Hui	Sheet	7 from 9			

Copyright by EDCON-COMPONENTS





- 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.



		Inn	er Lens Chij Green	o LED		
		Part No.	.: <b>M</b> 1	1G6003		
		Custome				
Chang	MATL:	Chui	DATE	04.12.2009		
	FINISH	Hui Sheet 8 from 9				

Dong

Ping

DRW:

APPD:

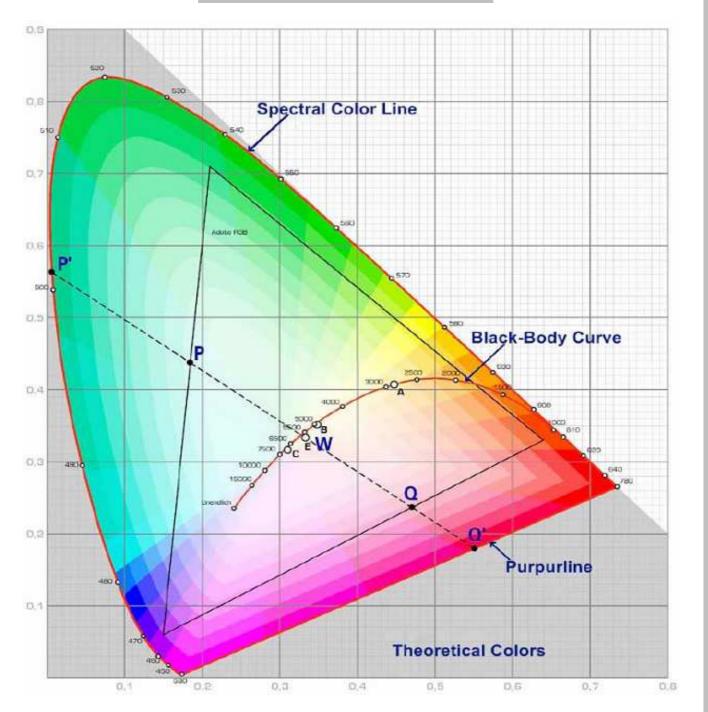
CHKD

Copyright by EDCON-COMPONENTS





Color table curve



					Inner Lens Chip LED Green		
					Part No.: <b>M11G6003</b>		G6003
					Customer:		
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
APPD:	Ping			FINISH	Hui	Sheet	9 from 9

www.edcon-components.com

Copyright by EDCON-COMPONENTS