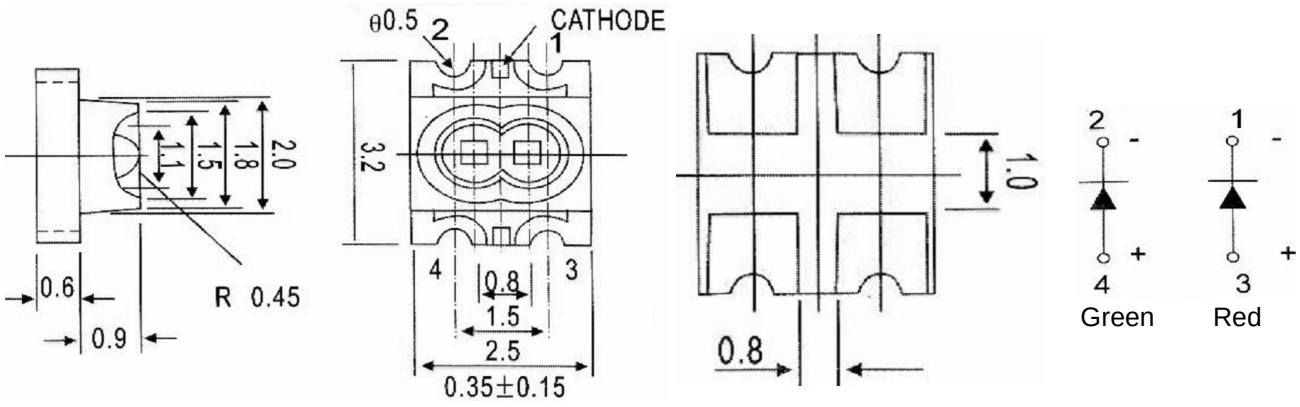
Applications

- 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

Green ***Red***

Part No.:	**M11G7001**
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	1 from 9

Absolute Maximum Ratings

Ta=25°C

Item	*Symbol*	*GaP*	*AlGaInP*	*Unit*
Power Dissipation	P_D	72		mW
DC Forward Current	I_F	30		mA
Plused Forward Current	I_{FP}*	100		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=5mA Ta=25°C

Ermitting Color		Green	Red	
Material		GaP	AlGaInP	
Forward Voltage	typ.	2.1	2.0	V_F
	max.	2.4	2.4	V_F
Wavelength typ.	λD	571	639	nm
	λP	---	---	nm
	Δλ	---	---	nm
Color Temperature	min.	---	---	K
	max.	---	---	K
Luminous Intensity *	min.	14	28	mcd
	typ.	21	50	mcd
Reverse Current	max.	---		μA
Viewing Angle	2Θ1/2	120		

* Per NIST standards

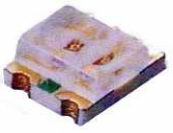
SMT Top View LED

Green ***Red***

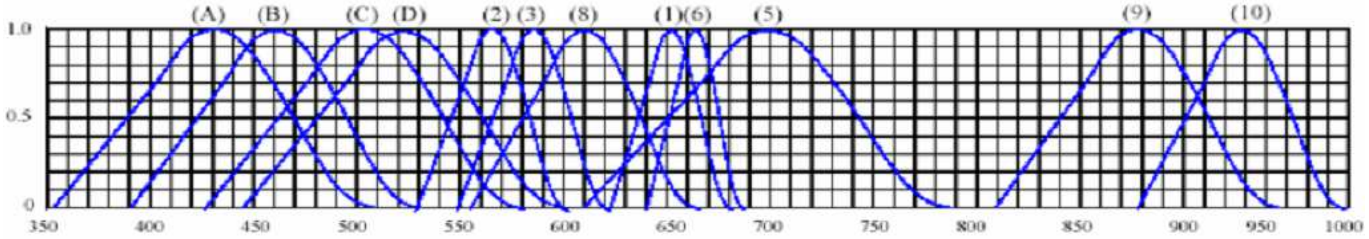
Part No.: **M11G7001**

Customer:

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	2 from 9



Curve



Wavelength (nm)

Relative Intensity vs Wavelength

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

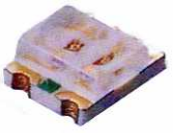
SMT Top View LED

Green Red

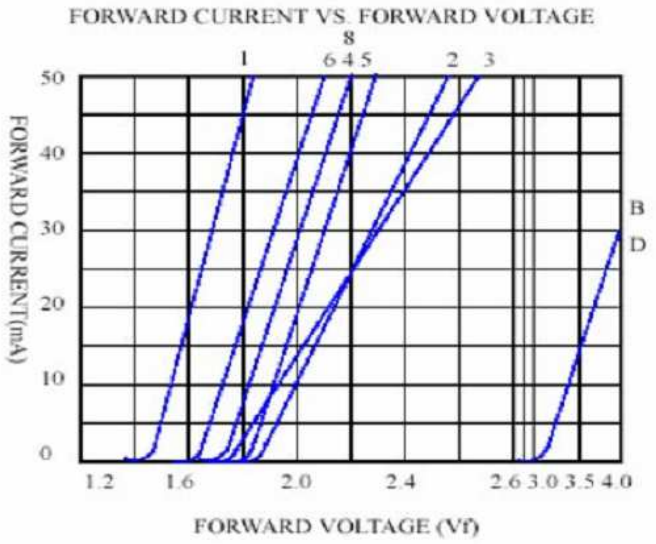
Part No.: **M11G7001**

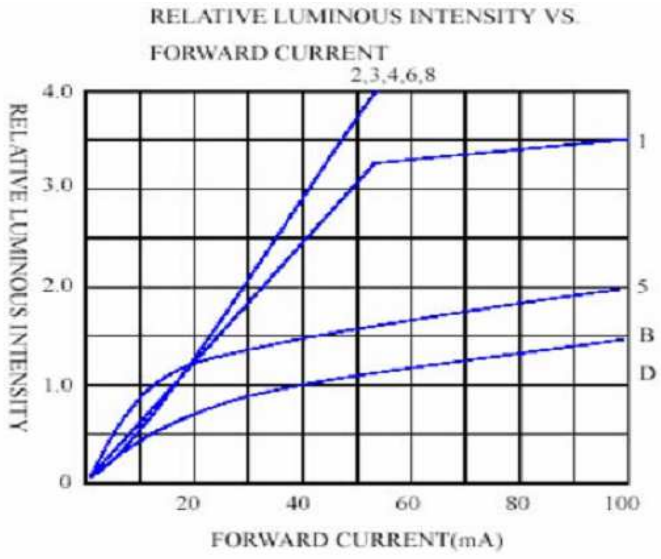
Customer:

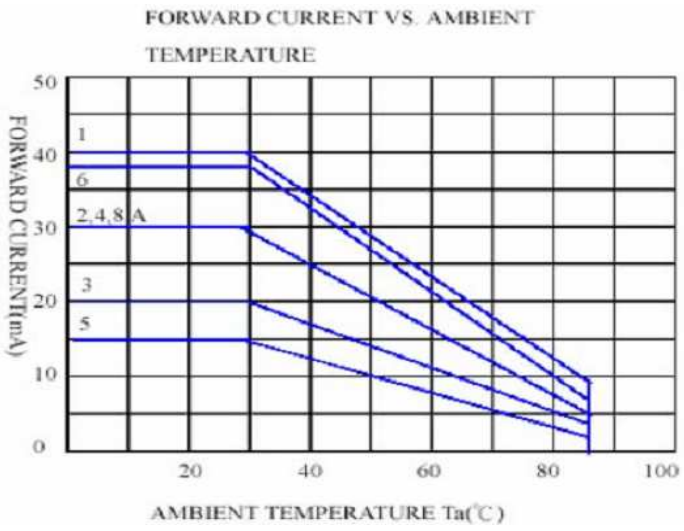
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	3 from 9

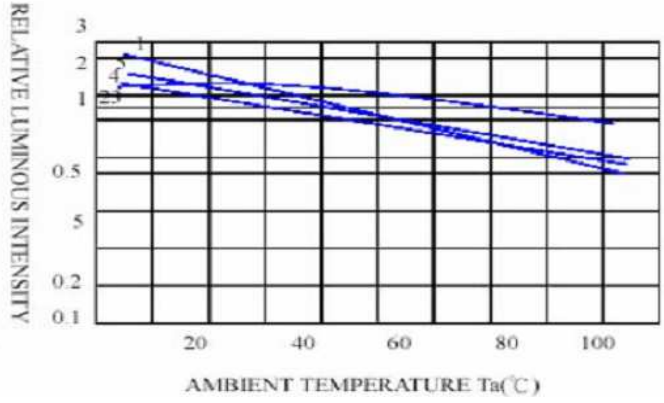


Curve









SMT Top View LED

Green ***Red***

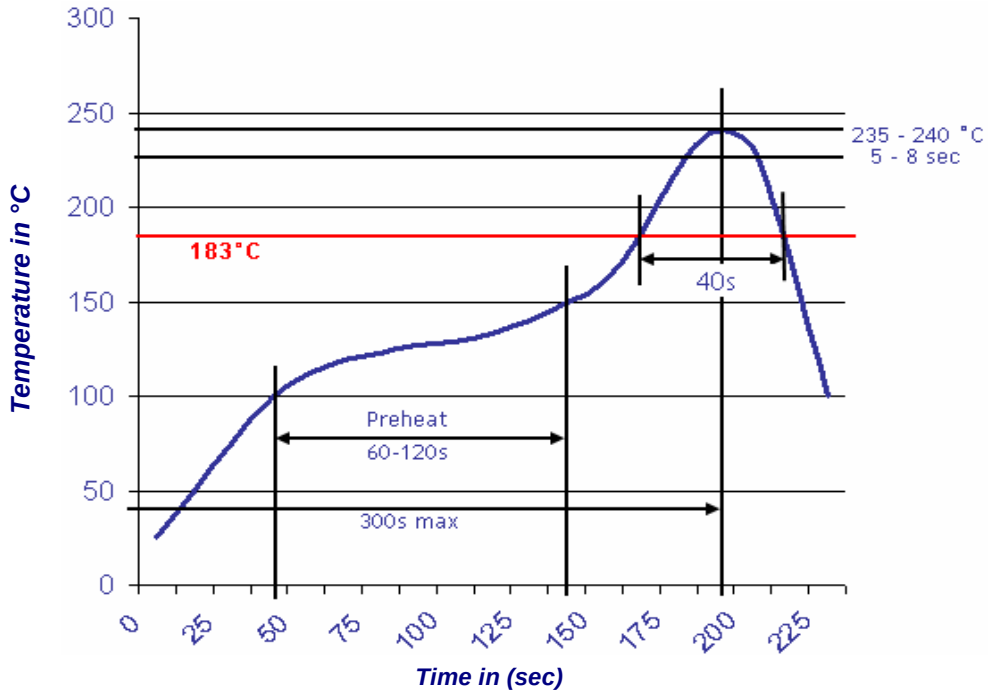
Part No.:	**M11G7001**
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	4 from 9

Solder Condition

Lead Free Solder

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



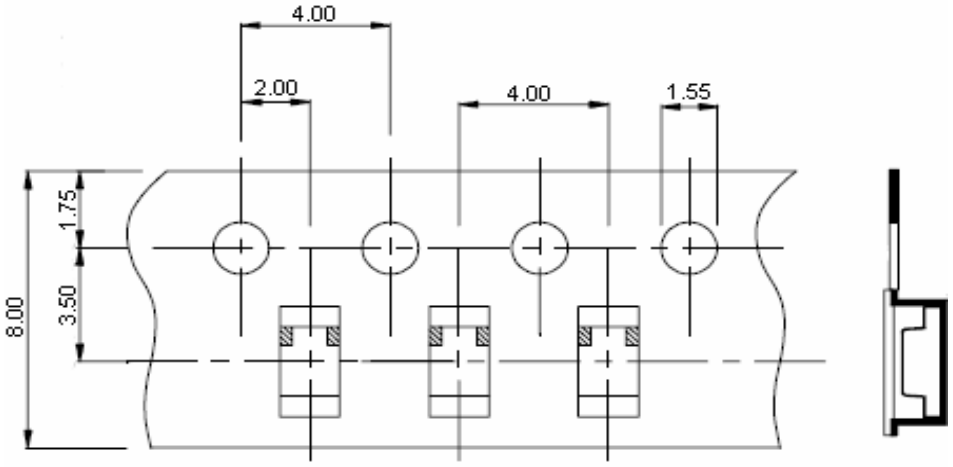
SMT Top View LED

Green ***Red***

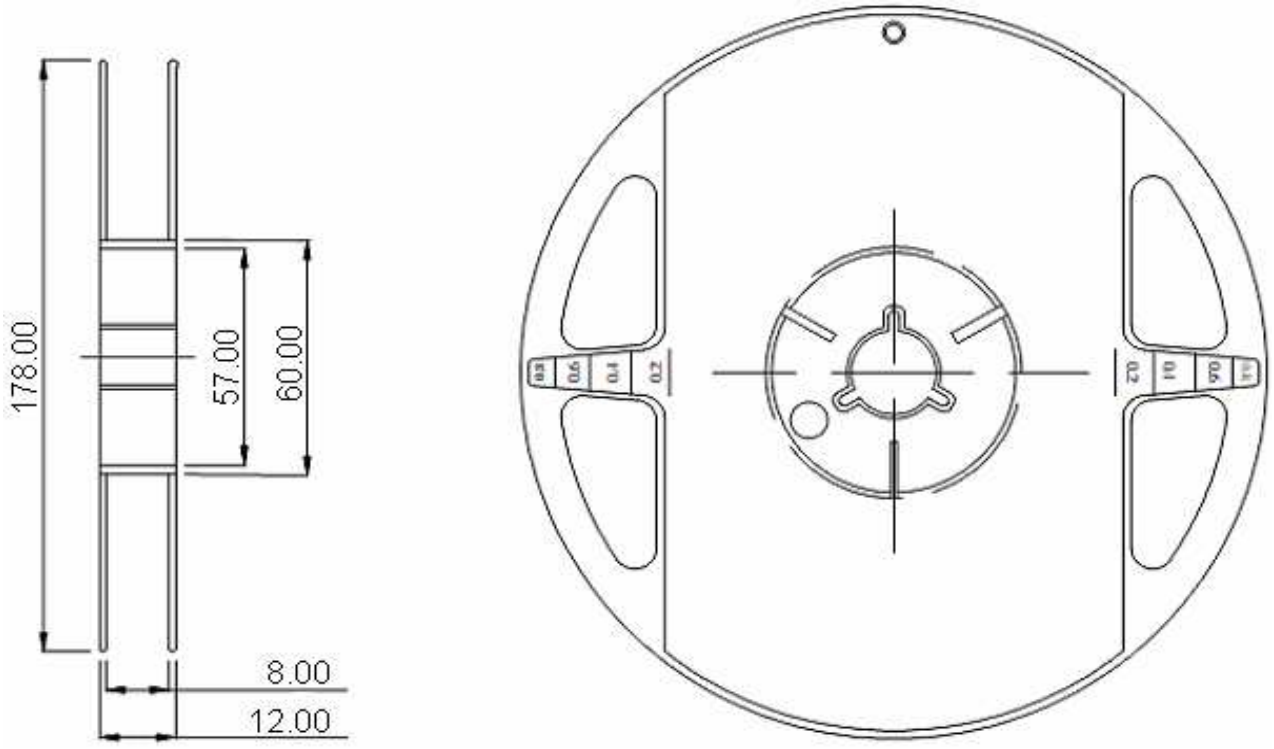
Part No.:	**M11G7001**
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	5 from 9

Packing Specifications



Reel Specifications



SMT Top View LED

Green ***Red***

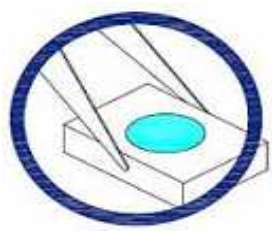
Part No.:	**M11G7001**
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	6 from 9

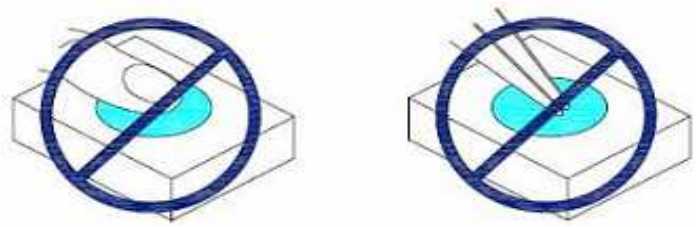
Handling Precautions

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.



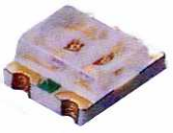
3. Do not stack together assembled PCBs containing exposed LEDs. Outside impact may scratch the silicone lens or damage the internal circuitry.

SMT Top View LED

Green ***Red***

Part No.:	**M11G7001**
Customer:	

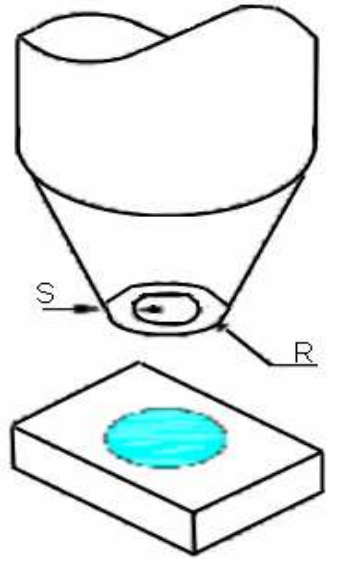
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	7 from 9



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.

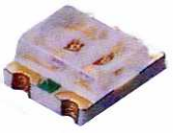


SMT Top View LED

Green ***Red***

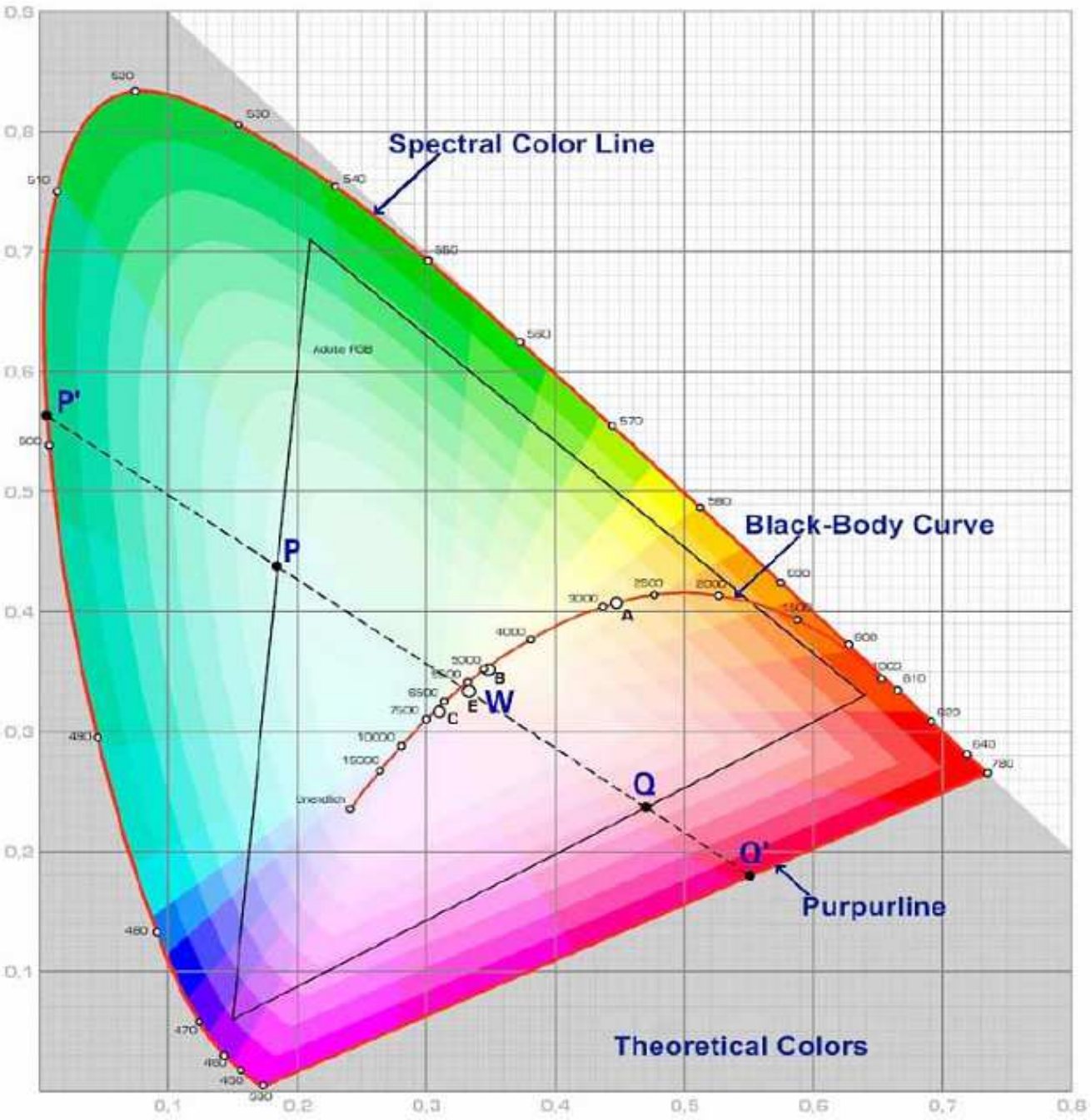
Part No.:	**M11G7001**
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	8 from 9



EDCON COMPONENTS
A MEMBER OF EDCON-GROUP

Color table curve



SMT Top View LED	
Green	***Red***
Part No.:	**M11G7001**
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	06.12.2009
APPD:	Ping			FINISH	Hui	Sheet	9 from 9