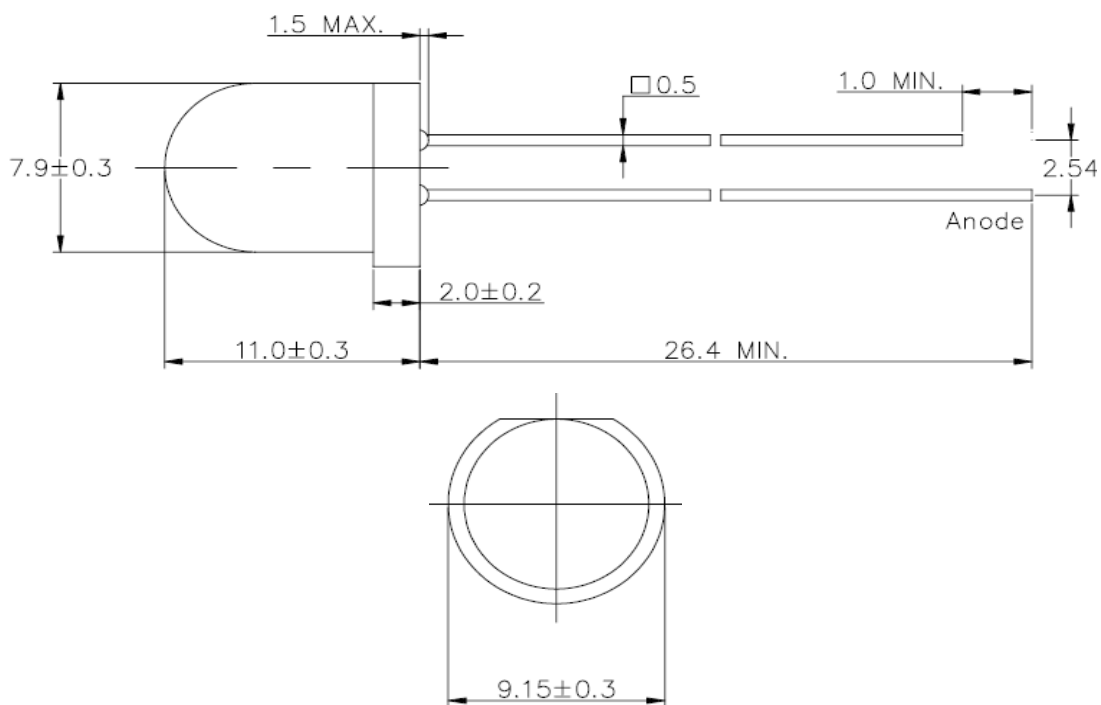




**Applications**

- Electronic Signs and Signals
- Small Area Illuminations
- Back Lighting
- Other Lighting

**Technical Drawing**



**Notes :**

All dimensions in mm tolerance is  $\pm 0.1$ mm unless otherwise noted.

<b>Round LED</b> <b>Blue</b>	
Part No.:	<b>M138001</b>
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	05.12.2009
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**Absolute Maximum Ratings**

Ta=25°C

Item	Symbol	InGaN	Unit
Power Dissipation	P <sub>D</sub>	120	mW
DC Forward Current	I <sub>F</sub>	30	mA
Pulsed Forward Current	I <sub>FP</sub> *	100	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>OP</sub>	-30 to 80	°C
Storage Temperature	T <sub>ST</sub>	-40 to 85	°C

\* 0.1 msec pulse, 10% duty cycle

**Electrical / Optical Characteristics**

I<sub>F</sub>=20mA Ta=25°C

Ermitting Color	Blue		
Material	InGaN		
Forward Voltage	typ.	3.2	V <sub>F</sub>
	max.	3.5	V <sub>F</sub>
Wavelength typ.	λ <sub>D</sub>	470	nm
	λ <sub>P</sub>	475	nm
	Δλ	30	nm
Color Temperature	min.	---	K
	max.	---	K
Luminous Intensity *	min.	3000	mcd
	typ.	5000	mcd
Reverse Current	max.	50	μA
Viewing Angle	2Θ <sub>1/2</sub>	30	

\* Per NIST standards

**Round LED**  
**Blue**

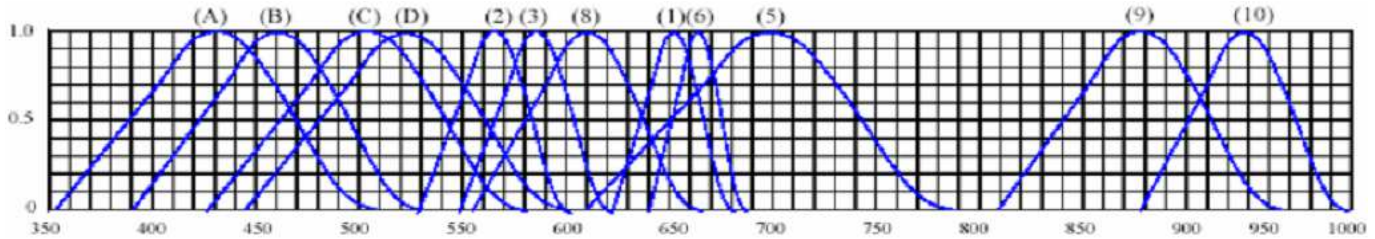
Part No.: **M138001**

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**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		

**Round LED  
Blue**

Part No.: **M138001**

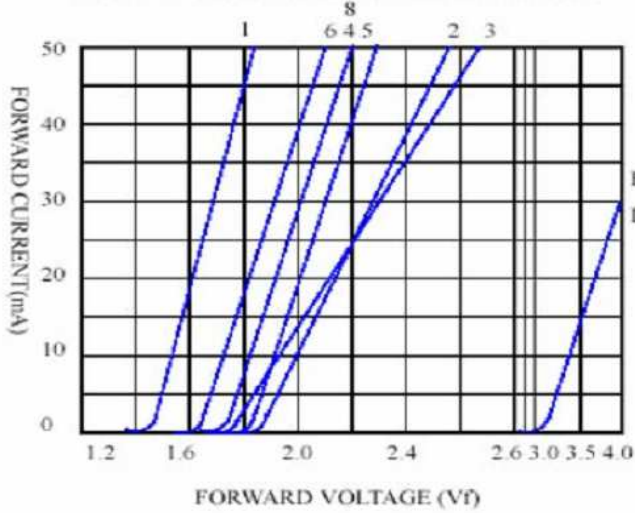
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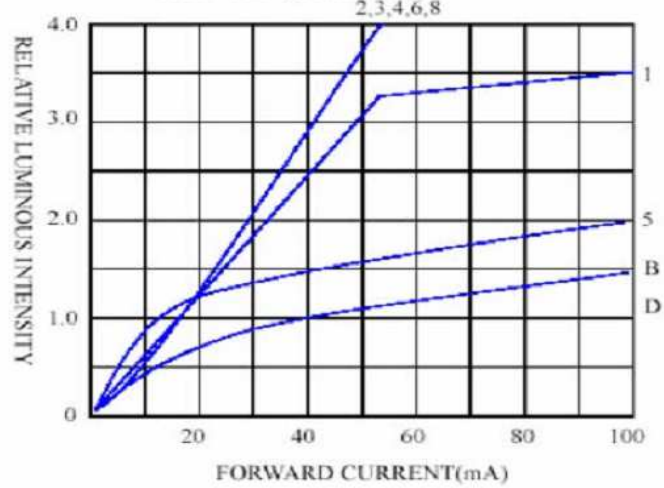


**Curve**

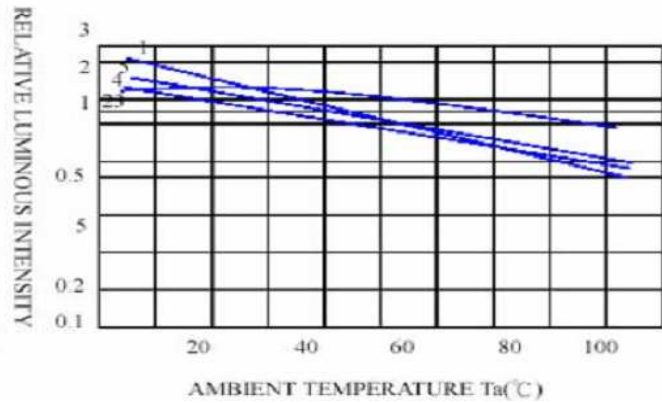
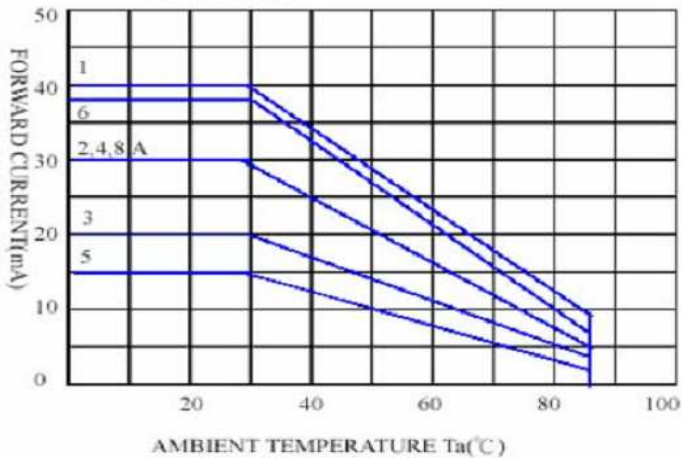
FORWARD CURRENT VS. FORWARD VOLTAGE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE



**Round LED**  
**Blue**

Part No.: **M138001**

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**Solder Condition**

**Lead Free Solder**

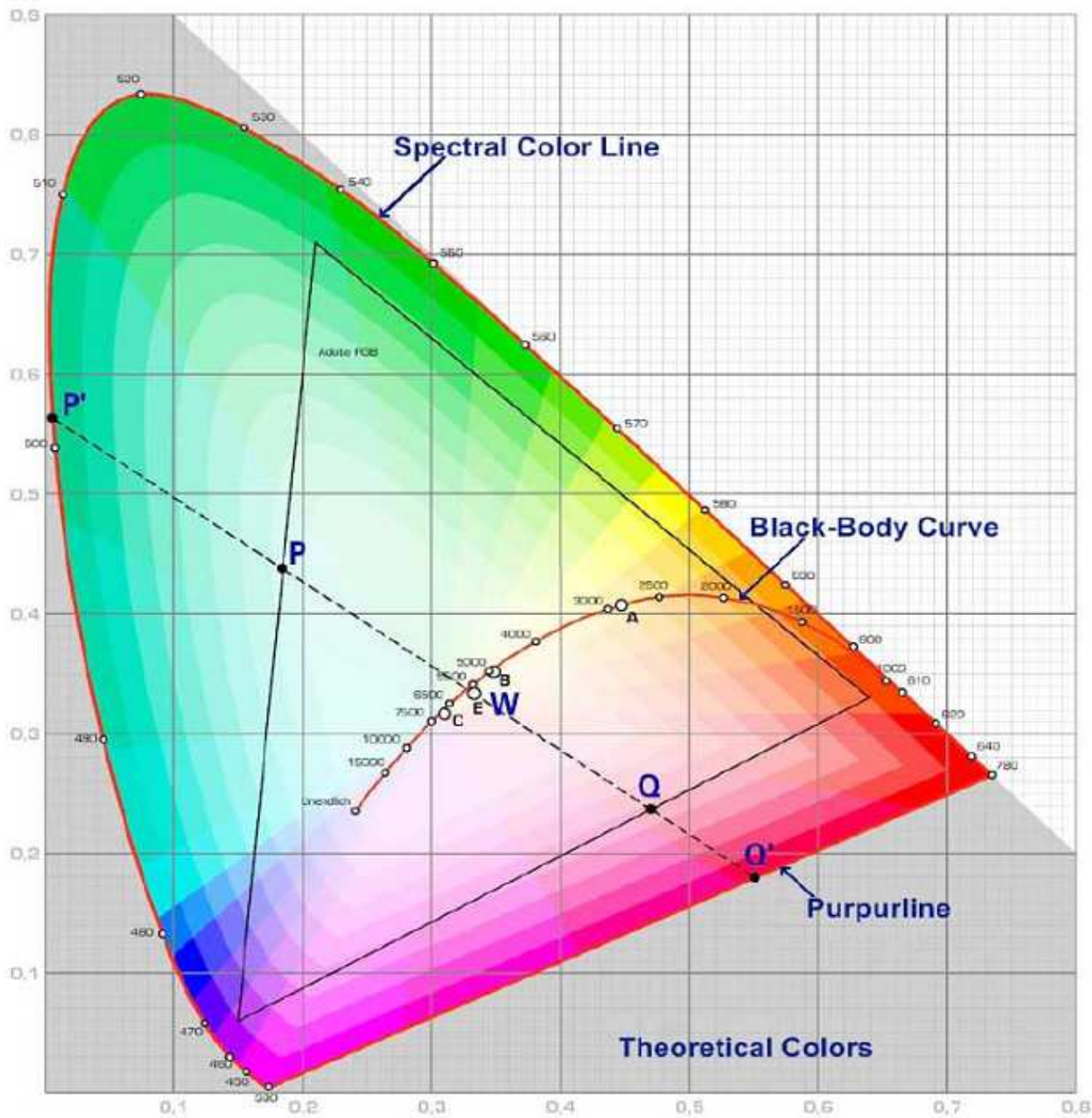


<b>Round LED Blue</b>	
Part No.:	<b>M138001</b>
Customer:	

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**Color table curve**



<b>Round LED Blue</b>	
Part No.:	<b>M138001</b>
Customer:	

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