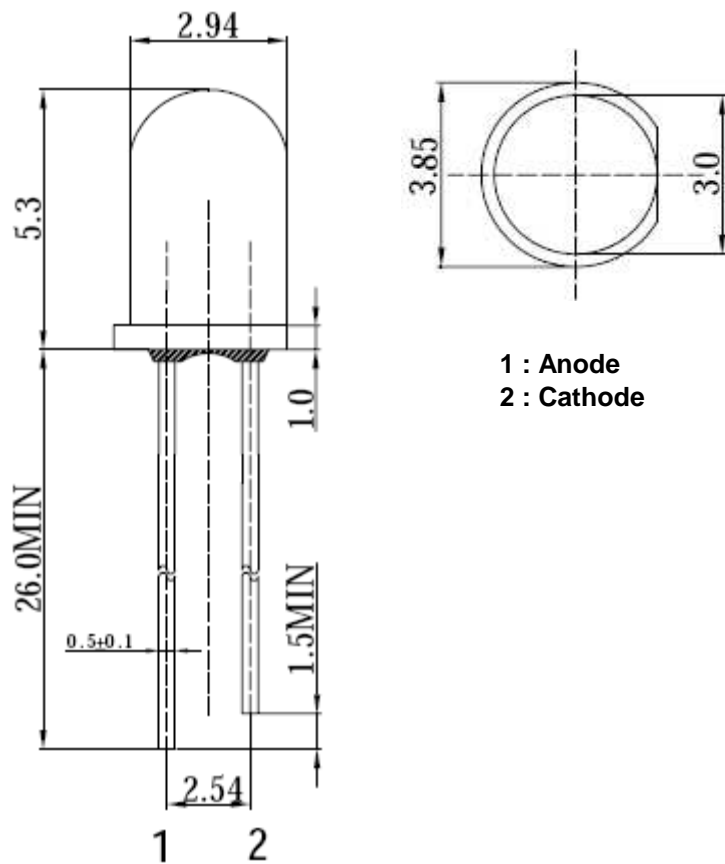




**Applications**

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

**Technical Drawing**



1 : Anode  
 2 : Cathode

**Notes :**

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

<b>Round LED</b> <b>White</b>	
Part No.:	<b>M13A2054</b>
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	30.06.2010
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**Absolute Maximum Ratings**

Item	Symbol	InGaN	Unit
Power Dissipation	P <sub>D</sub>	140	mW
DC Forward Current	I <sub>F</sub>	30	mA
Pulsed Forward Current	I <sub>FP</sub> *	70	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>OP</sub>	-40 to 80	°C
Storage Temperature	T <sub>ST</sub>	-40 to 100	°C

\* 0.1 msec pulse, 10% duty cycle

**Electrical / Optical Characteristics**

Ermitting Color	White		
Material	InGaN		
Forward Voltage	typ.	2.9	V <sub>F</sub>
	max.	3.3	V <sub>F</sub>
Wavelength typ.	λ <sub>D</sub>	---	nm
	λ <sub>P</sub>	---	nm
	Δλ	---	nm
Color Temperature	min.	---	K
	max.	---	K
Luminous Intensity *	min.	2700	mcd
	typ.	4000	mcd
Reverse Current	max.	---	μA
Viewing Angle	2Θ <sub>1/2</sub>	40	

\* Per NIST standards

<b>Round LED</b> <b>White</b>	
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### Directive Characteristics

**Round LED  
White**

Part No.: **M13A2054**

Customer:

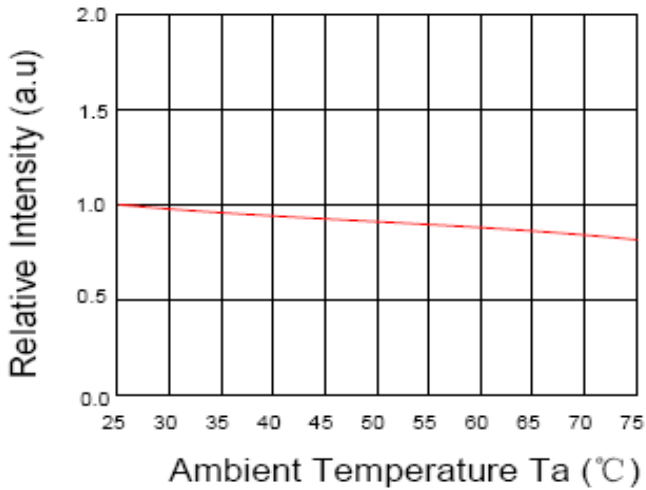
DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	30.06.2010
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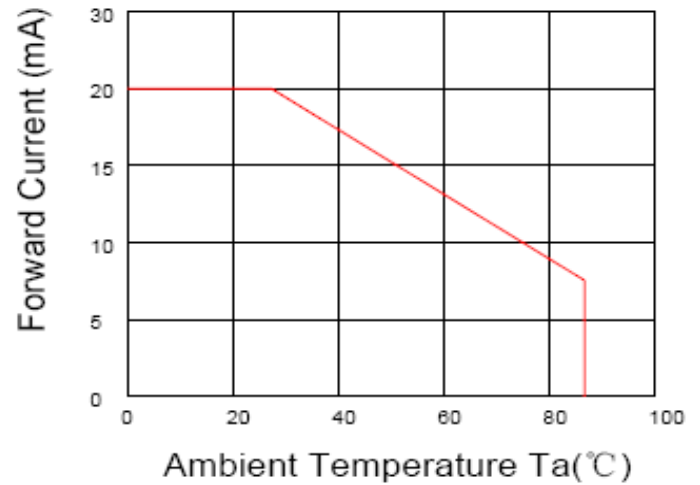


**Curve**

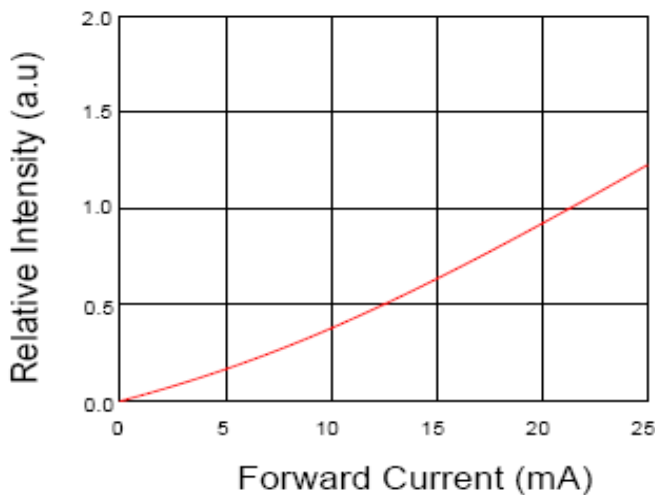
Relative Intensity VS. Ambient Temp



Forward Current VS. Ambient Temp



Forward Current VS. Relative Intensity



**Round LED  
White**

Part No.: **M13A2054**

Customer:

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	30.06.2010
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**Solder Condition**

**Lead Free Solder**

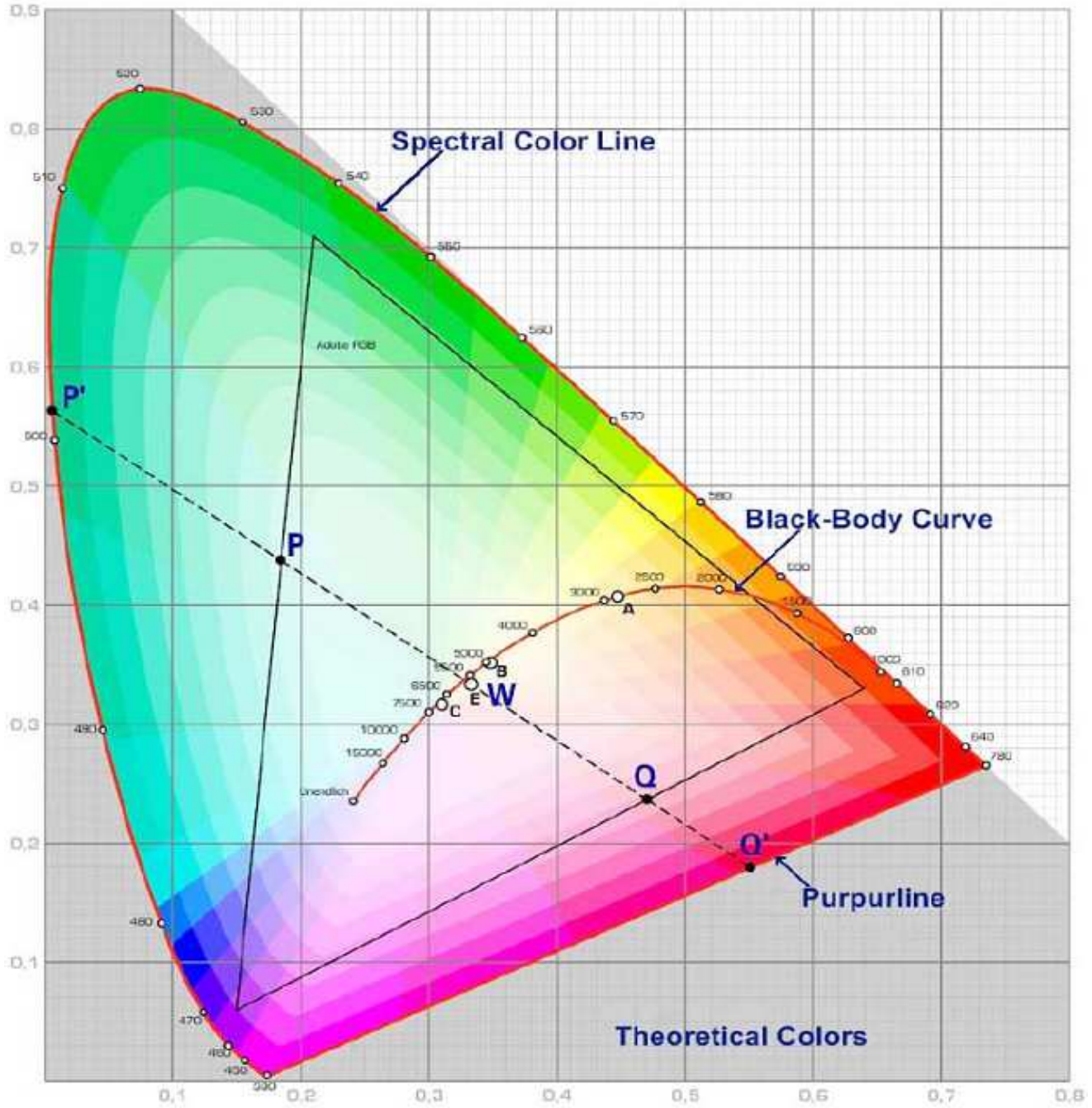


<b>Round LED White</b>	
Part No.:	<b>M13A2054</b>
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**Color table curve**



<b>Round LED White</b>	
Part No.:	<b>M13A2054</b>
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