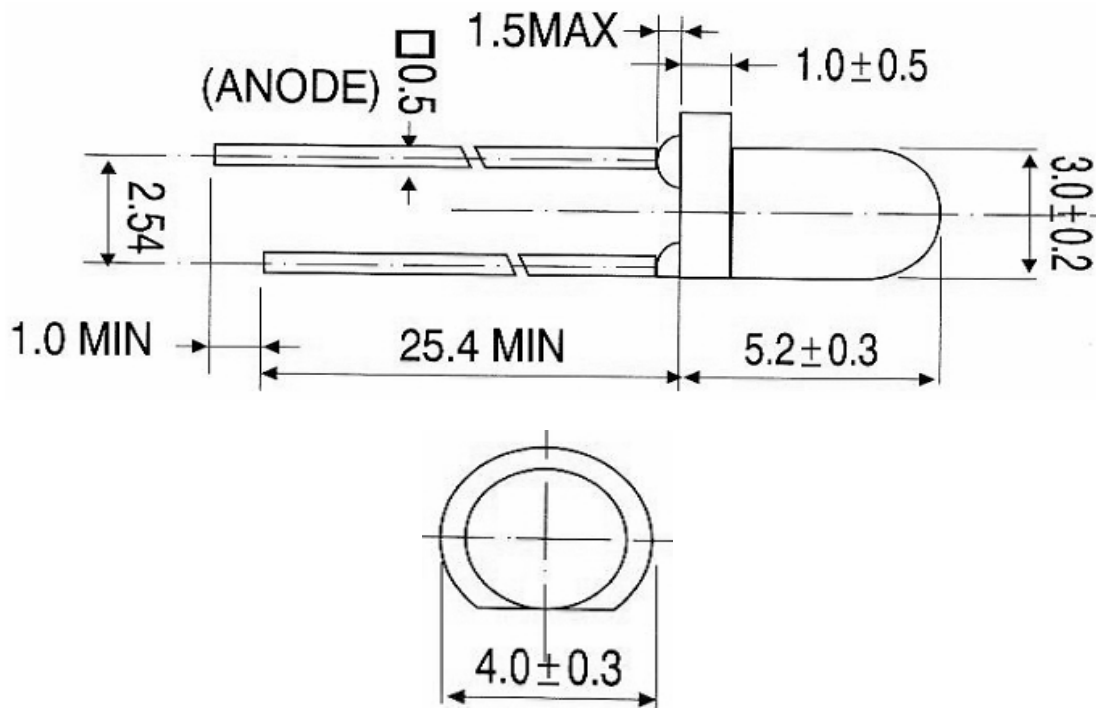




**Applications**

- 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>Red</b>	
Part No.:	<b>M13E2010</b>
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
APPD:	Ping			FINISH	Hui	Sheet	1 from 6



**Absolute Maximum Ratings**

Ta=25°C

Item	Symbol	AlGaInP	Unit
Power Dissipation	P <sub>D</sub>	---	mW
DC Forward Current	I <sub>F</sub>	20	mA
Pulsed 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

**Electrical / Optical Characteristics**

I<sub>F</sub>=20mA Ta=25°C

Ermitting Color	Red		
Material	AlGaInP		
Forward Voltage	typ.	2.0	V <sub>F</sub>
	max.	2.4	V <sub>F</sub>
Wavelength typ.	λ <sub>D</sub>	624	nm
	λ <sub>P</sub>	---	nm
	Δλ	---	nm
Color Temperature	min.	---	K
	max.	---	K
Luminous Intensity *	min.	230	mcd
	typ.	570	mcd
Reverse Current	max.	---	μA
Viewing Angle	2Θ1/2	25	

\* Per NIST standards

**Round LED**  
**Red**

Part No.: **M13E2010**

Customer:

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
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**Directive Characteristics**

**Round LED  
Red**

Part No.: **M13E2010**

Customer:

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
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**Curve**

<b>Round LED Red</b>	
Part No.:	<b>M13E2010</b>
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
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**Solder Condition**

**Lead Free Solder**

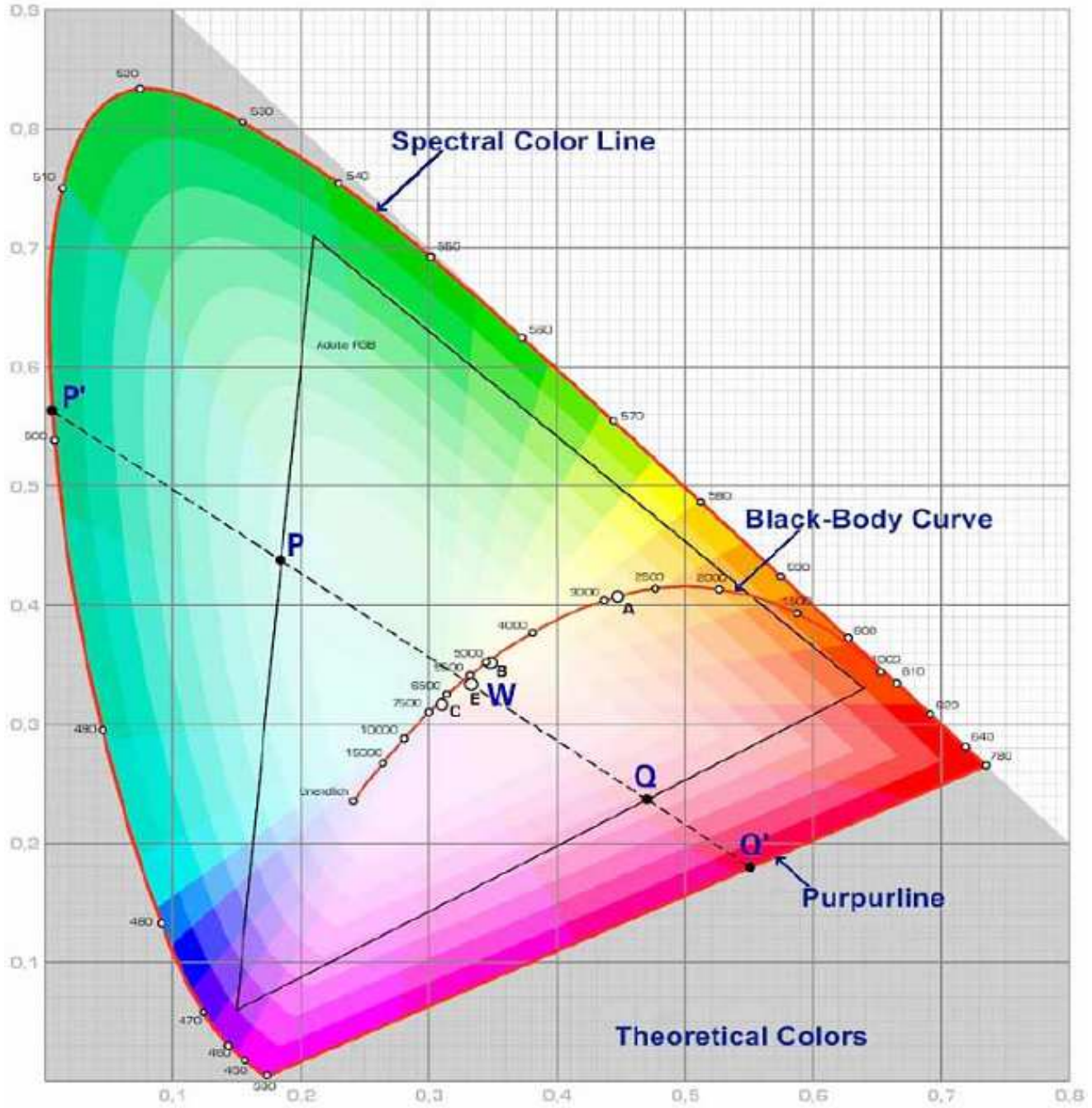


<b>Round LED Red</b>	
Part No.:	<b>M13E2010</b>
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
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**Color table curve**



<b>Round LED Red</b>	
Part No.:	<b>M13E2010</b>
Customer:	

DRW:	Dong	CHKD	Chang	MATL:	Chui	DATE	04.12.2009
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