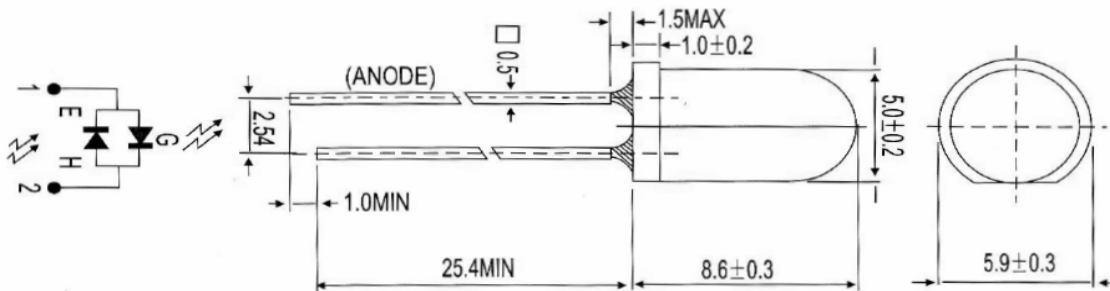




**Applications**

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

**Technical Drawing**



**Notes :**

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

<b>Round LED</b>	
<b>Green</b>	<b>Red</b>
Part No.:	<b>M13H2002</b>
Customer:	

DRW:	Ron	CHKD	Lang	MATL:	Chang	DATE	05.12.2009
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**Absolute Maximum Ratings**

Ta=25°C

Item	Symbol	GaP	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

Emitting Color Material	Green		Red	
	GaP		GaP	
Forward Voltage	typ.	2.1	2.0	V <sub>F</sub>
	max.	2.4	2.4	V <sub>F</sub>
Wavelength typ.	λ <sub>D</sub>	570	700	nm
	λ <sub>P</sub>	---	---	nm
	Δλ	---	---	nm
Color Temperature	min.	---	---	K
	max.	---	---	K
Luminous Intensity *	min.	0.63	0.4	mcd
	typ.	2.50	1.1	mcd
Reverse Current	max.	---		μA
Viewing Angle	2Θ1/2	54		

\* Per NIST standards

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**Directive Characteristics**

<b>Round LED</b>	
<b>Green</b>	<b>Red</b>
Part No.:	<b>M13H2002</b>
Customer:	

DRW:	Ron	CHKD	Lang	MATL:	Chang	DATE	05.12.2009
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Curve

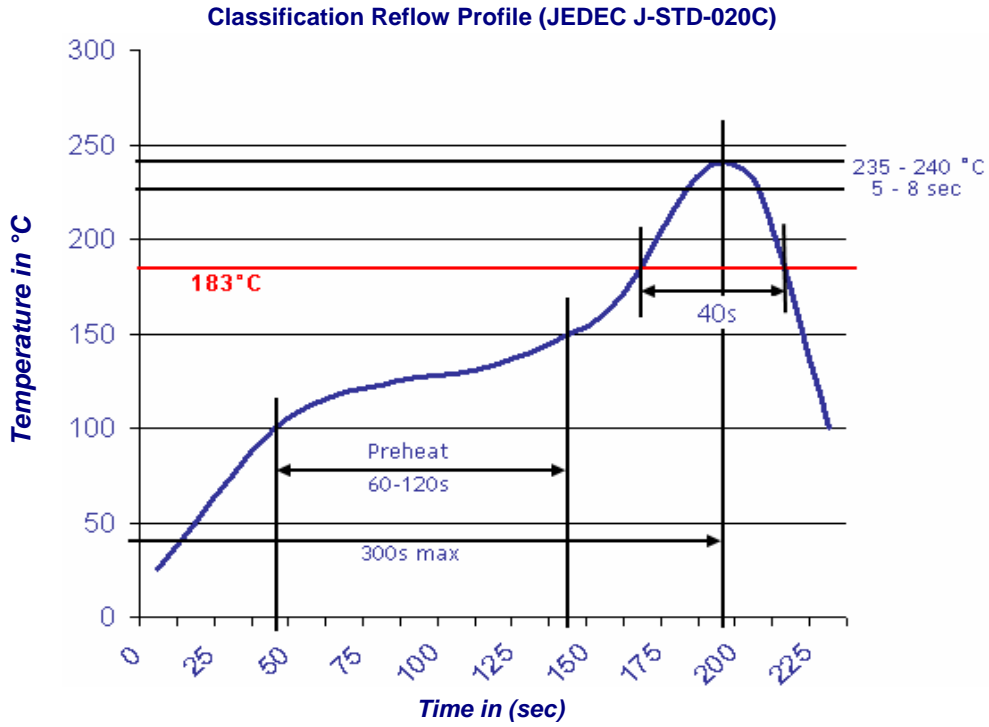
<b>Round LED</b>	
<b>Green</b>	<b>Red</b>
Part No.:	<b>M13H2002</b>
Customer:	

DRW:	Ron	CHKD	Lang	MATL:	Chang	DATE	05.12.2009
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**Solder Condition**

**Lead Free Solder**

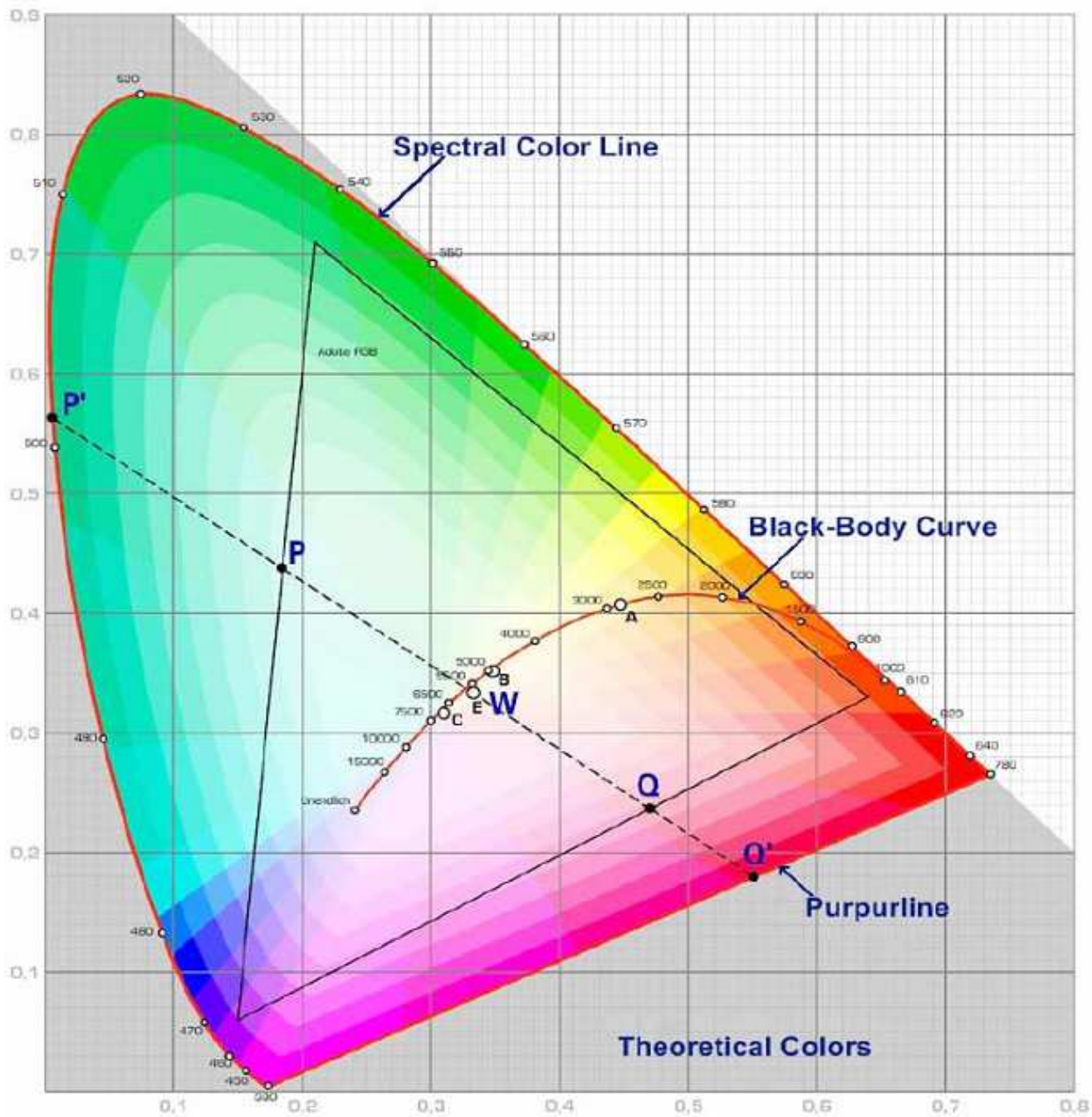


<b>Round LED</b>	
<b>Green</b>	<b>Red</b>
Part No.:	<b>M13H2002</b>
Customer:	

DRW:	Ron	CHKD	Lang	MATL:	Chang	DATE	05.12.2009
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**Color table curve**



<b>Round LED</b>	
<b>Green</b>	<b>Red</b>
Part No.:	<b>M13H2002</b>
Customer:	

DRW:	Ron	CHKD	Lang	MATL:	Chang	DATE	05.12.2009
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