

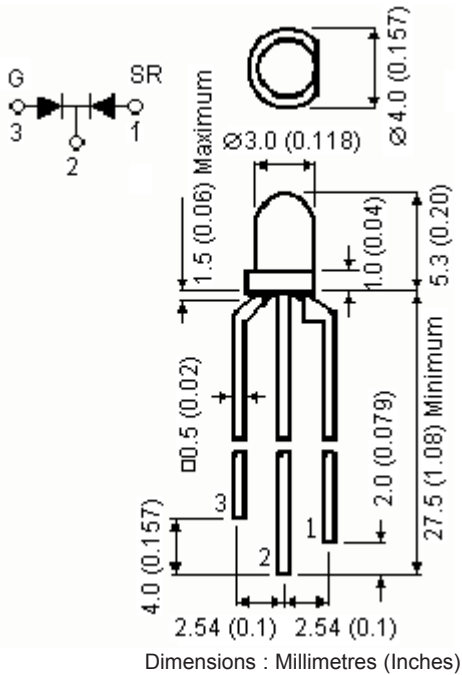


PART NO.

MCL039SRGW

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Geetha	27/5/08	Suresh	27/5/08	G. C	11/6/08



Specifications:

Dice material : AlGaAs/GaP.  
 Emitted color : Super red/green.  
 Lens color : White diffused.  
 Peak wavelength : 660/568nm.  
 Viewing angle : 76 degrees.  
 Luminous intensity (IV) : 30/10mcd.



Electrical/Optical Characteristics at  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	18/6	30/10	50/18	mcd	IF = 20mA
Viewing Angle	2 $\theta$ 1/2	-	76	-	degrees	
Peak Emission Wavelength	$\lambda_p$	-	660/568	-	nm	-
Dominant Wavelength	$\lambda_d$	-	643/570	-		-
Spectral Line Half-Width	$\Delta\lambda$	-	20/30	-		-
Forward Voltage	VF	1.5/1.7	1.8/2.1	2.5/2.6	V	IF = 20mA
Power Dissipation	Pd	-	-	85	-	-
Peak Forward Current (Duty 1/10 at 1KHz)	IF (Peak)	-	-	100	-	-
Recommended Operating Current	IF (Rec)	-	20	-	mA	-

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Suresh	27/05/08
<b>APPROVED BY:</b>	<b>DATE:</b>
G.Cook	11/06/08

<b>DRAWING TITLE:</b>			
3.0mm Multi-Color LED Lamp - HI Red / Green			
<b>SIZE</b>	<b>DWG NO.</b>	<b>ELECTRONIC FILE</b>	<b>REV</b>
A	M10001120	L039SRGW_DWG	A
<b>SCALE: NTS</b>		<b>U.O.M.: mm (Inches)</b>	<b>SHEET: 1 OF 5</b>



PART NO.

MCL039SRGW

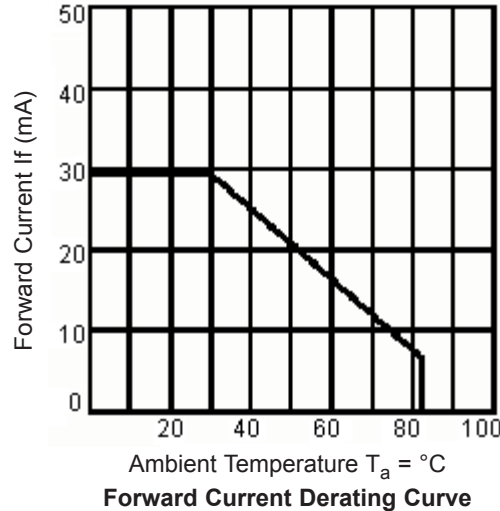
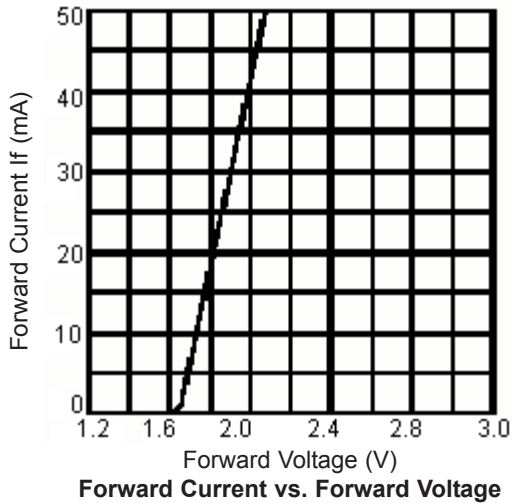
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**Absolute Maximum Ratings (T<sub>a</sub> = 25°C)**

Reverse Voltage	5 Volt
Reverse Current	10µA (V <sub>R</sub> = 5V)
Operating Temperature Range	-40°C to 85°C
Storage Temperature Range	-40°C to 100°C
Lead Soldering Temperature Range 1.6mm (1/16 inch) from body	260°C for 5 Seconds

**Super Red (GaAlAs) λP = 660nm**



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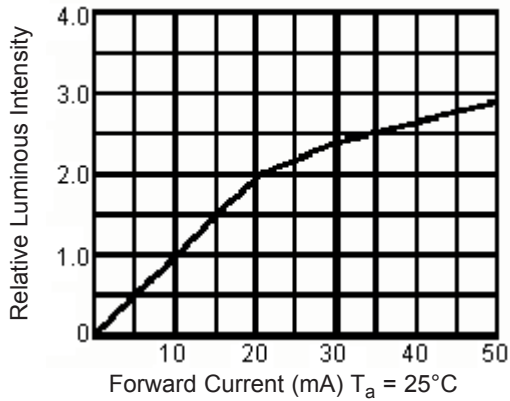
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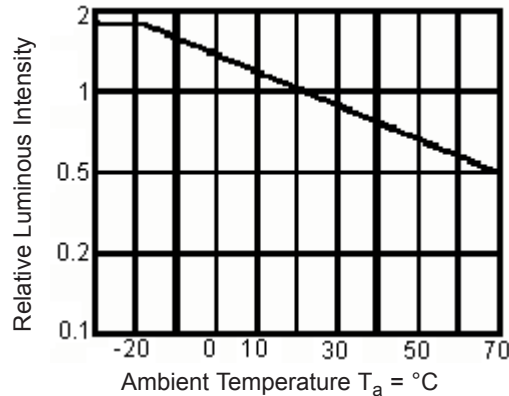
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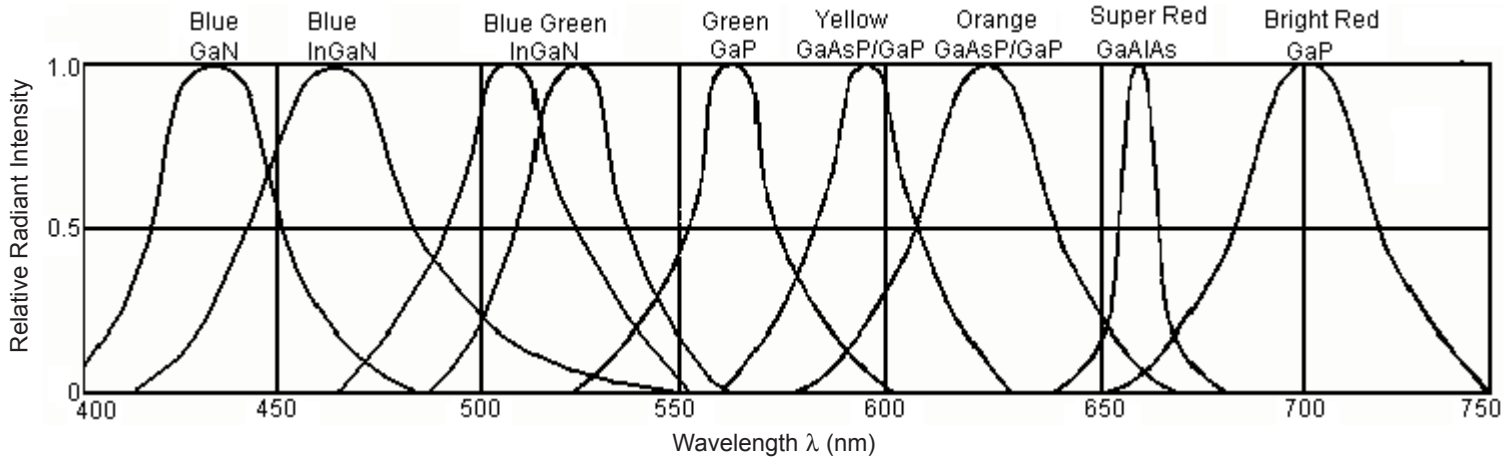
Super Red (GaAlAs) λP = 660nm



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature



Relative Intensity vs. Wavelength

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G.Cook	11/06/08

DRAWING TITLE:

3.0mm Multi-Color LED Lamp - HI Red / Green

SIZE	DWG NO.	ELECTRONIC FILE	REV
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SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 3 OF 5	



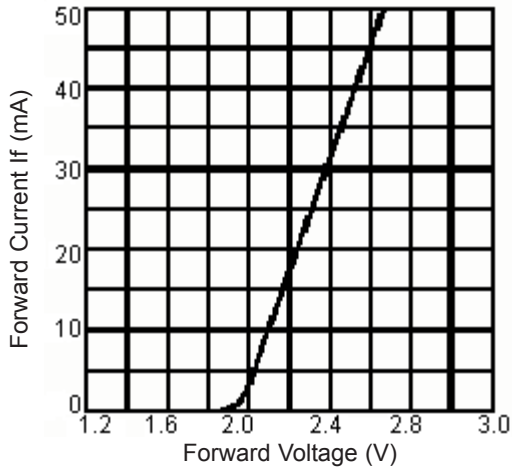
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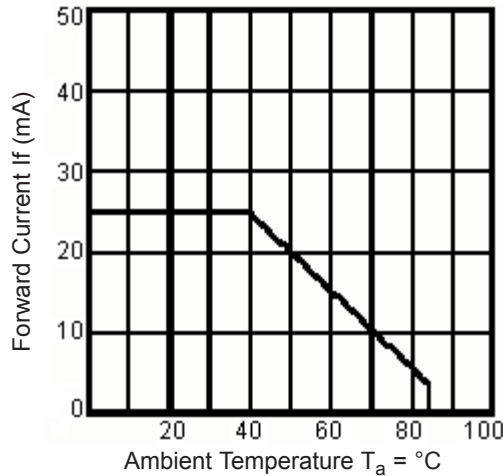
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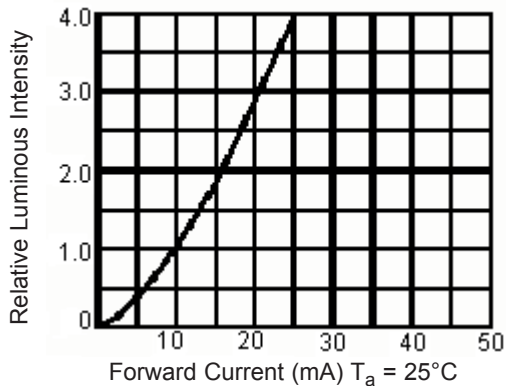
Green (GaP  $\lambda_P = 568\text{nm}$ )



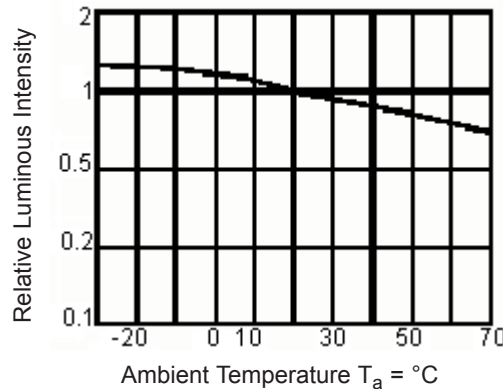
Forward Current vs. Forward Voltage



Forward Current Derating Curve



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature

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DRAWING TITLE:

3.0mm Multi-Color LED Lamp - HI Red / Green

SIZE <b>A</b>	DWG NO. <b>M10001120</b>	ELECTRONIC FILE L039SRGW_DWG	REV <b>A</b>
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 4 OF 5



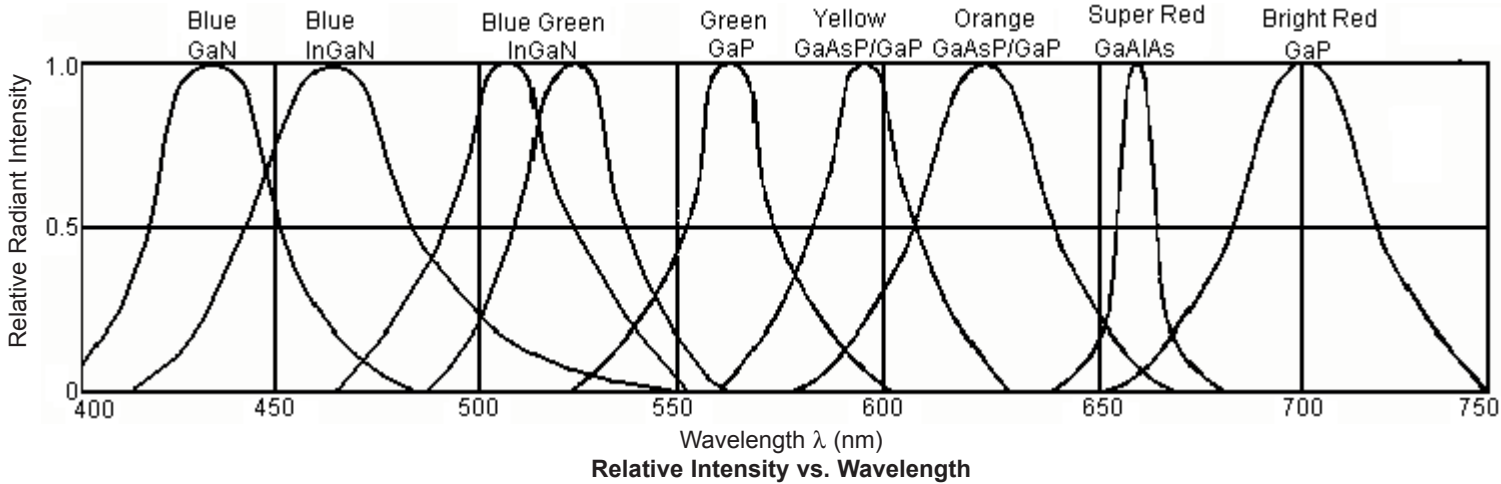
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Green (GaP  $\lambda_P = 568\text{nm}$ )



Part Number Table

Description	Part Number
LED, 3mm, HI-Red/Green	MCL039SRGW

<http://www.farnell.com>  
<http://www.newark.com>  
<http://www.cpc.co.uk>

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