



PART NO.

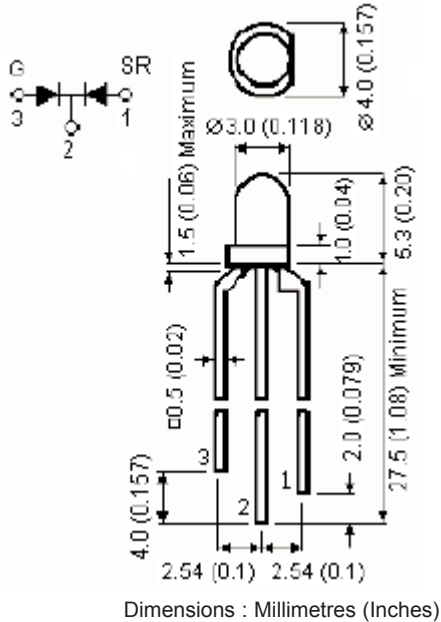
MCL039PURGW

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Jagan	14/10/09	Sridhar	14/10/09	Farnell	28/10/09

Specifications:

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



Electrical/Optical Characteristics at T_a = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	18/6	30/10	50/18	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	76	-	degrees	
Peak Emission Wavelength	• λ _p	-	660/568	-	nm	-
Dominant Wavelength	• λ _D	-	643/570	-		-
Spectral Line Half-Width	Δλ	-	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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DRAWN BY:	DATE:
Jagan	14/10/09
CHECKED BY:	DATE:
Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:

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

SIZE A	DWG NO. M10002403	ELECTRONIC FILE 52930_1581194_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 1 OF 5



PART NO.

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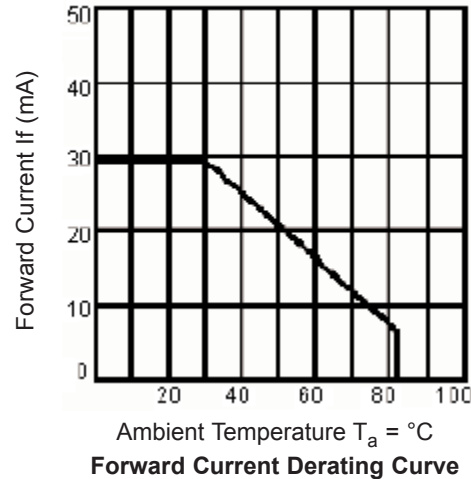
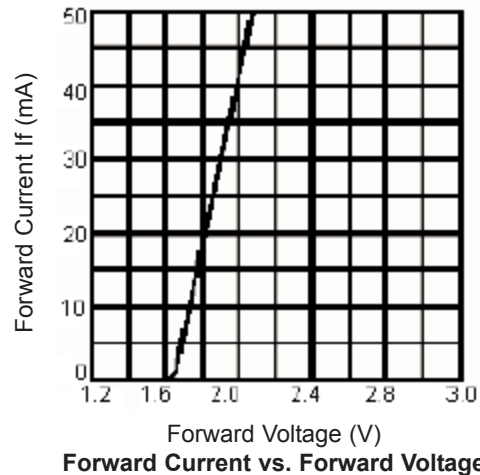
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Absolute Maximum Ratings (T_a = 25°C)

Reverse Voltage	5 Volt
Reverse Current	10μA (V _R = 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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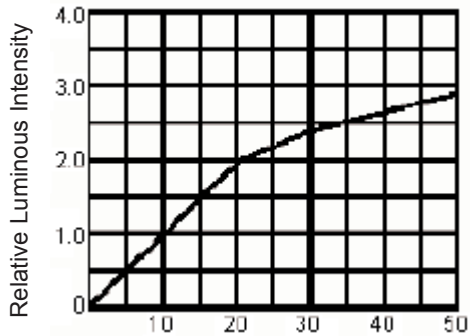
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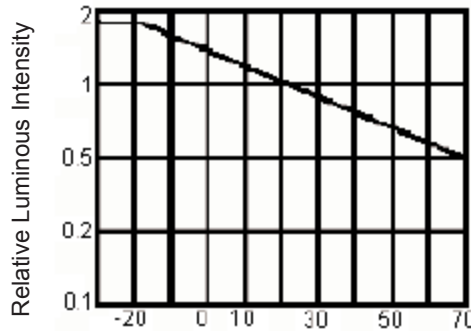
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Super Red (GaAlAs) $\lambda_P = 660\text{nm}$



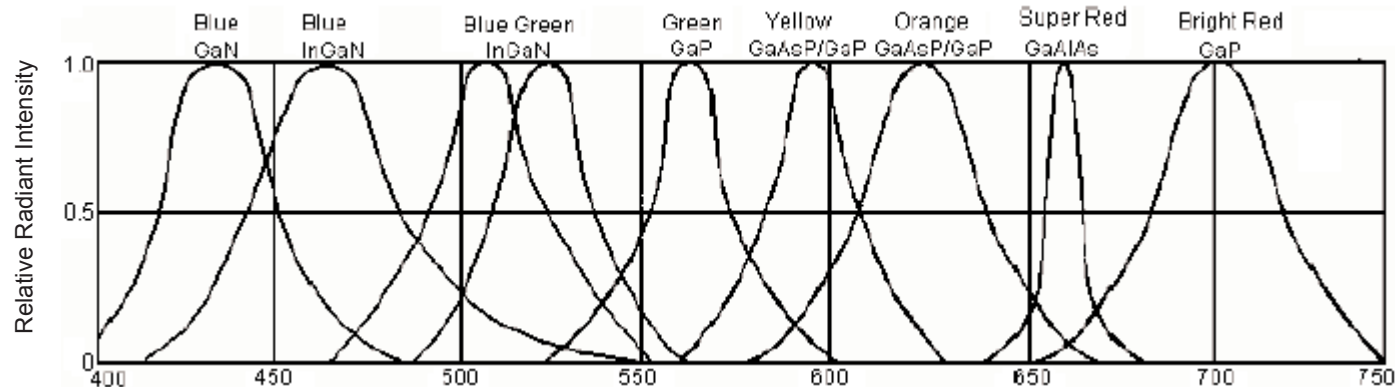
Forward Current (mA) $T_a = 25^\circ\text{C}$

Luminous Intensity vs. Forward Current



Ambient Temperature $T_a = ^\circ\text{C}$

Luminous Intensity vs. Ambient Temperature



Wavelength λ (nm)

Relative Intensity vs. Wavelength

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DRAWING TITLE:

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

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SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 3 OF 5	



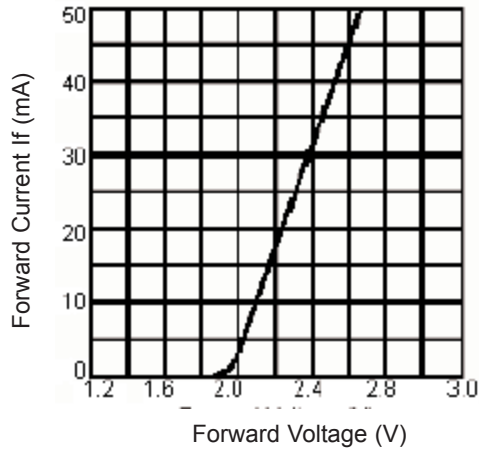
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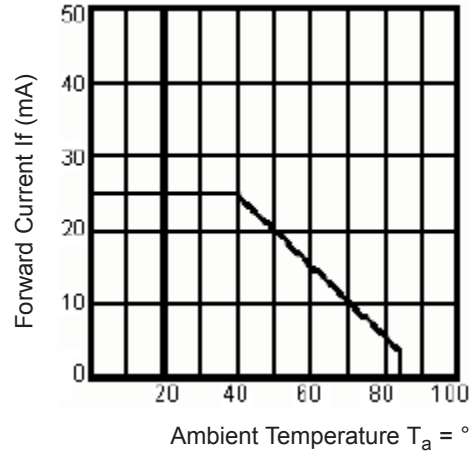
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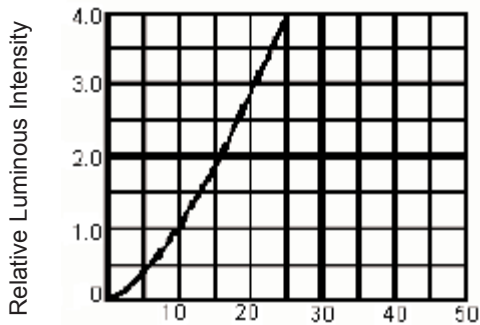
Green (GaP $\lambda_P = 568\text{nm}$)



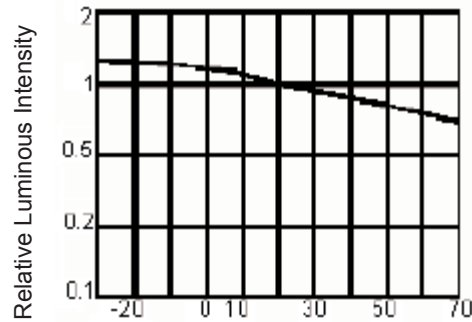
Forward Current vs. Forward Voltage



Forward Current Derating Curve



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature

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

SIZE	DWG NO.	ELECTRONIC FILE	REV
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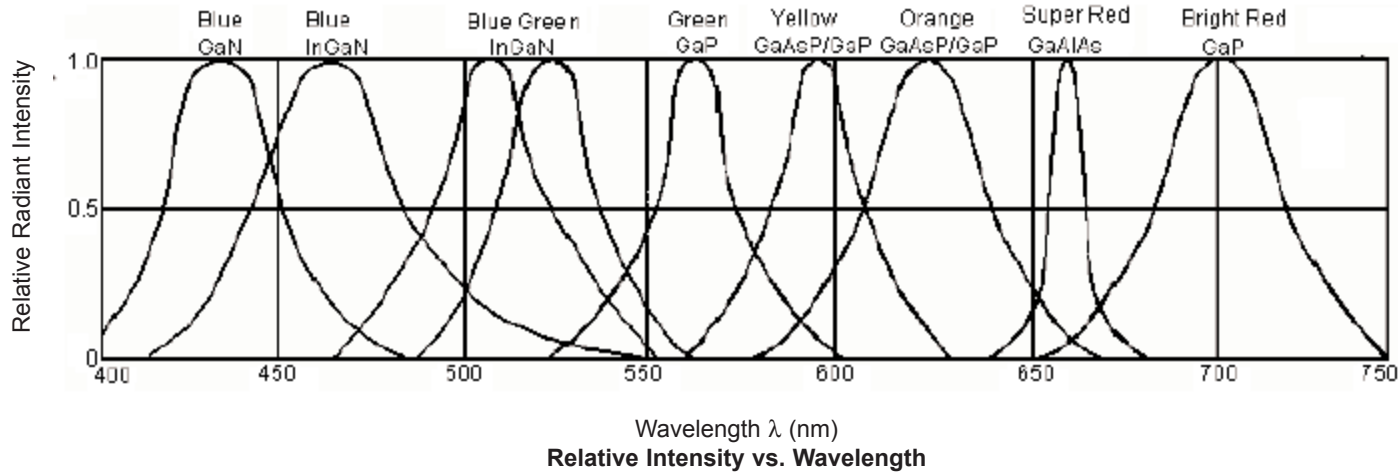
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Green (GaP $\lambda_P = 568\text{nm}$)



Part Number Table

Description	Part Number
LED, 3mm, HI-Red/Green	MCL039PURGW

<http://www.farnell.com>

<http://www.newark.com>

<http://www.cpc.co.uk>

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