

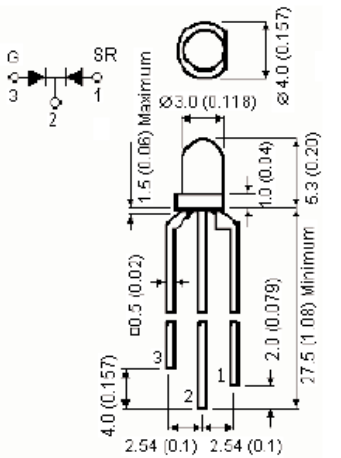


PART NO.

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



Dimensions : Millimetres (Inches)

Specifications:

Dice material : AlAGas/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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TOLERANCES: UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.	DRAWN BY:	DATE:	DRAWING TITLE:			
	Jagan	14/10/09	3.0mm Multi-colour LED Lamp - HI Red/Green			
	CHECKED BY:	DATE:	SIZE	DWG NO.	ELECTRONIC FILE	REV
	Sridhar	14/10/09	A	M10002403	52930_1581194_DWG	A
APPROVED BY:	DATE:	SCALE: NTS		U.O.M.: mm (Inches)		SHEET: 1 OF 5
Farnell	28/10/09					



PART NO.

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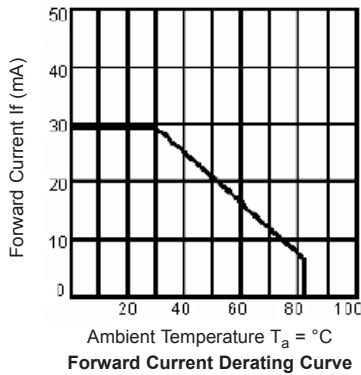
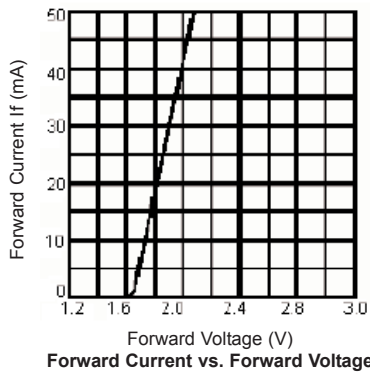
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Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Reverse Voltage	5 Volt
Reverse Current	$10\mu\text{A}$ ($V_R = 5\text{V}$)
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) $\lambda_P = 660\text{nm}$



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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	DWG NO.	ELECTRONIC FILE	REV
A	M10002403	52930_1581194_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 5



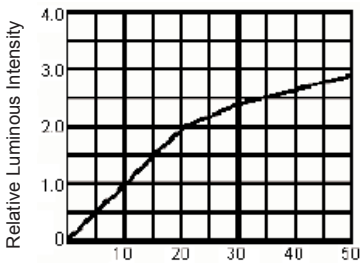
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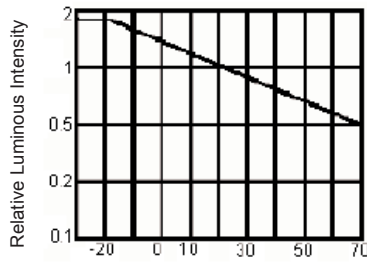
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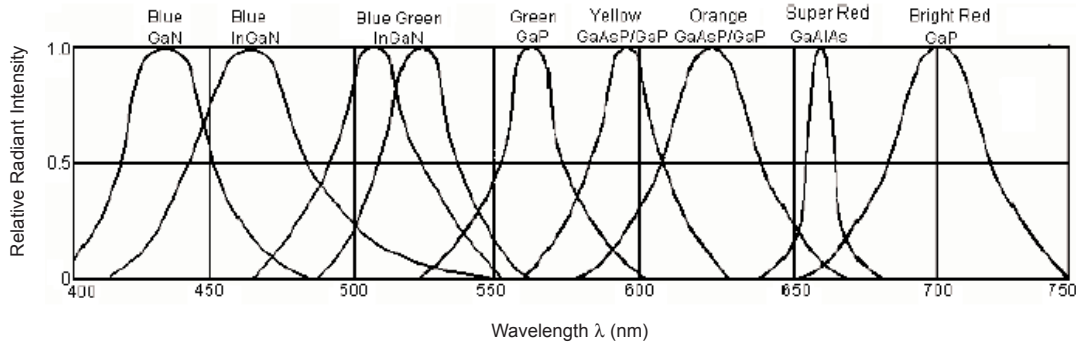
Super Red (GaAlAs) $\lambda_P = 660\text{nm}$



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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Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

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3.0mm Multi-colour LED Lamp - HI Red/Green			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002403	52930_1581194_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 3 OF 5



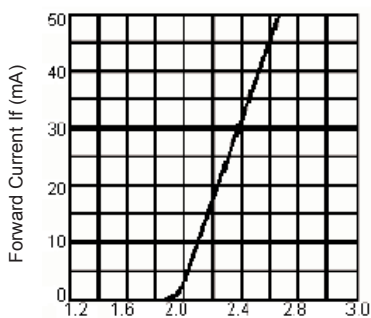
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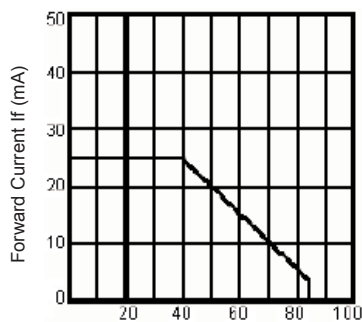
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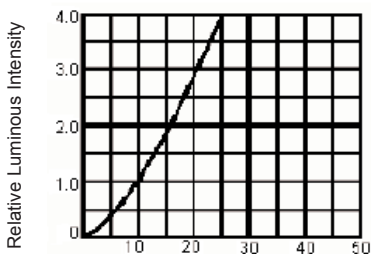
Green (GaP $\lambda_P = 568\text{nm}$)



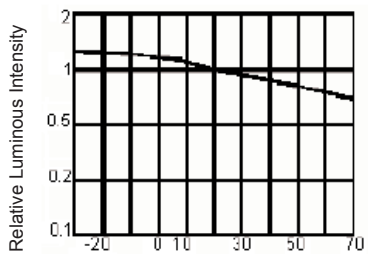
Forward Current vs. Forward Voltage



Forward Current Derating Curve



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature

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Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:

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

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002403	52930_1581194_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 4 OF 5	



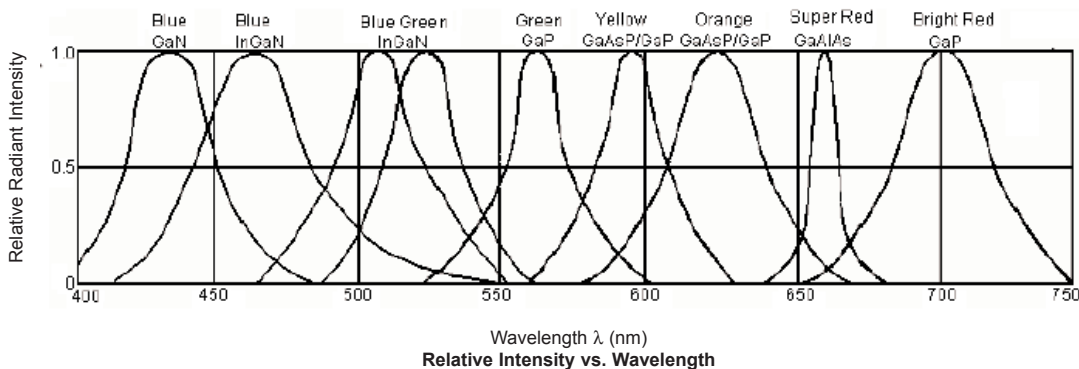
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Green (GaP $\lambda_P = 568\text{nm}$)



Part Number Table

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

<http://www.farnell.com>

<http://www.newark.com>

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

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APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:

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

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