



PART NO.

MCL239SRGW

REVISIONS

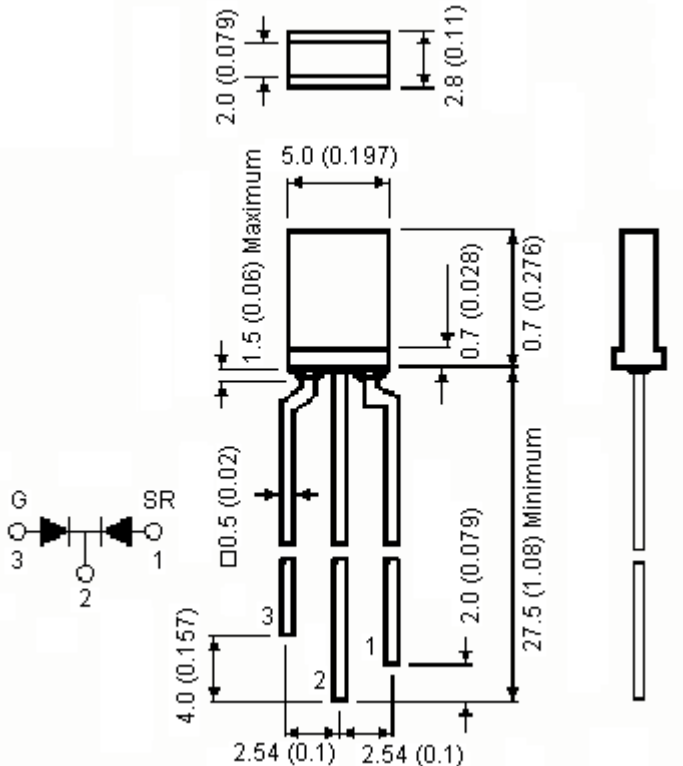
ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Veena	25/6/08	Suresh	25/6/08	G. C	10/7/08

Specifications:

Dice material	: GaAlAs/GaP.
Emitted color	: Super red/green.
Lens color	: White diffused.
Peak wavelength	: 660/568nm.
Viewing angle	: 120 degrees.
Luminous intensity (IV)	: 12/3.1mcd.

Electrical/Optical Characteristics at T_a = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	6.0/1.4	12/3.1	18/4.9	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	120	-	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	-



Dimensions : Millimetres (Inches)

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DRAWN BY:

Veena

DATE:

25/06/08

CHECKED BY:

Suresh

DATE:

25/06/08

APPROVED BY:

G.Cook

DATE:

10/07/08

DRAWING TITLE:

2.0mm x 5.0mm x 7.0mm Multi-color LED Lamp - HI Red/Green

SIZE
A

DWG NO.

M10001263

ELECTRONIC FILE
L239SRGW_DWGREV
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 1 OF 5



PART NO.

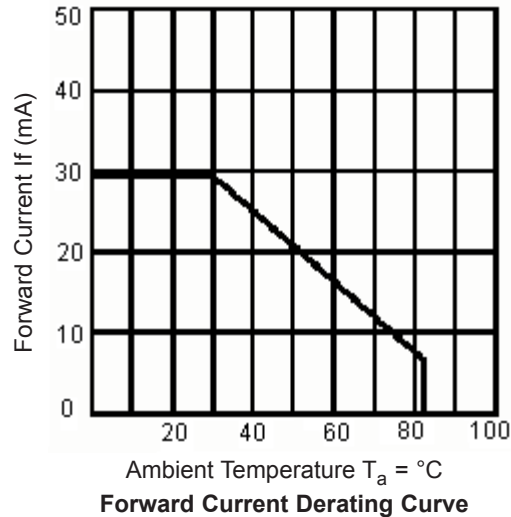
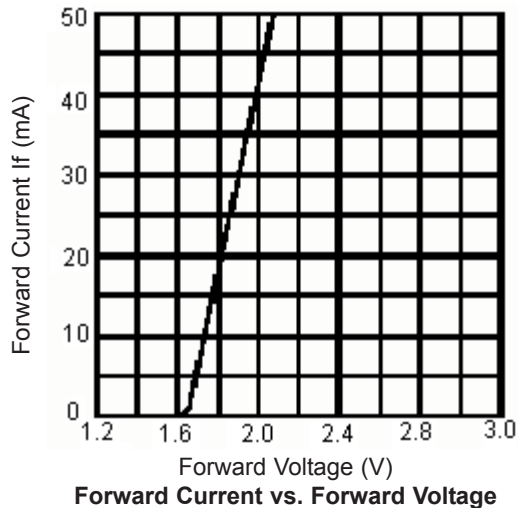
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Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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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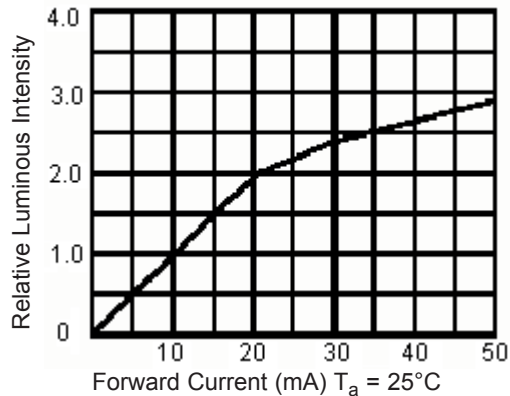


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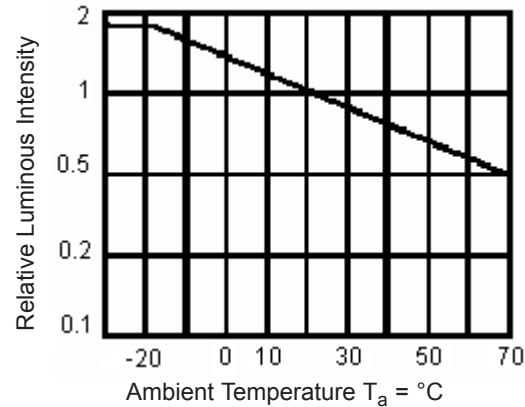
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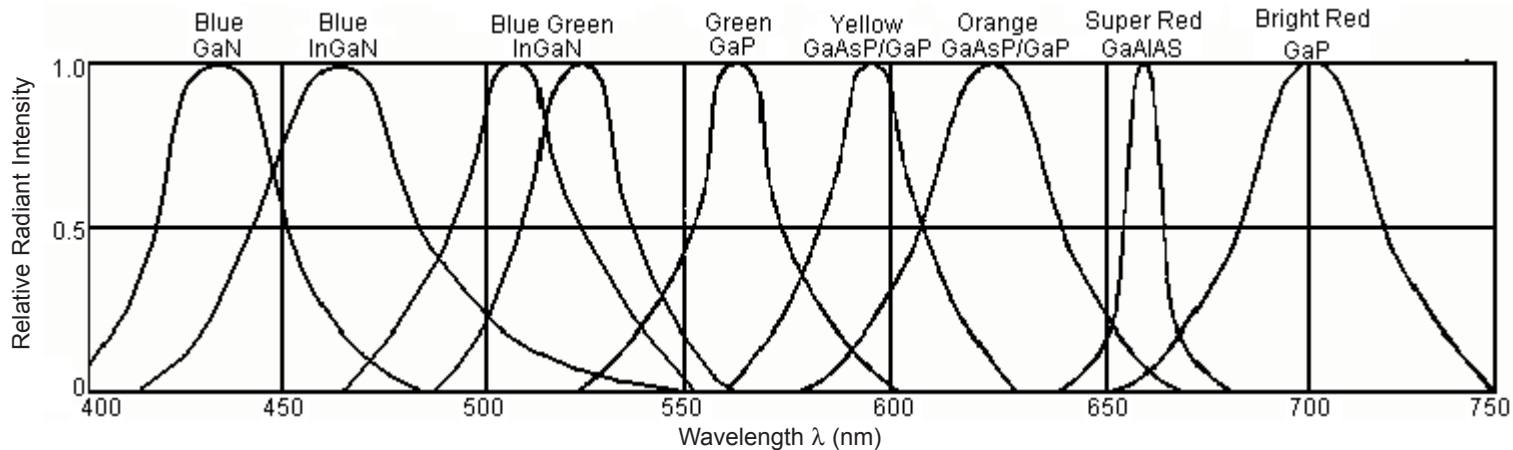
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Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature



Relative Intensity vs. Wavelength

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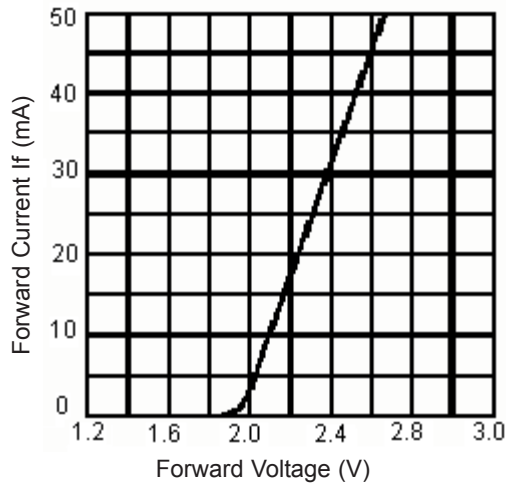


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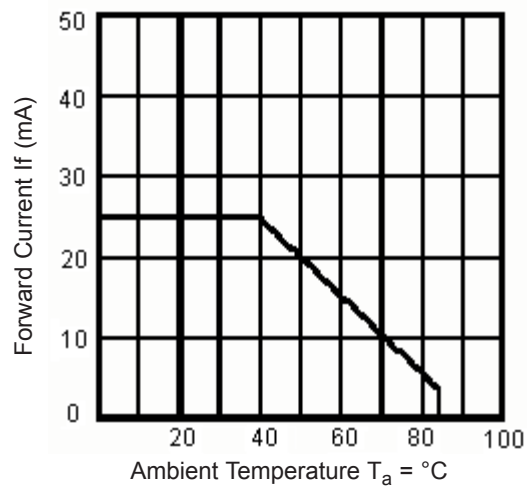
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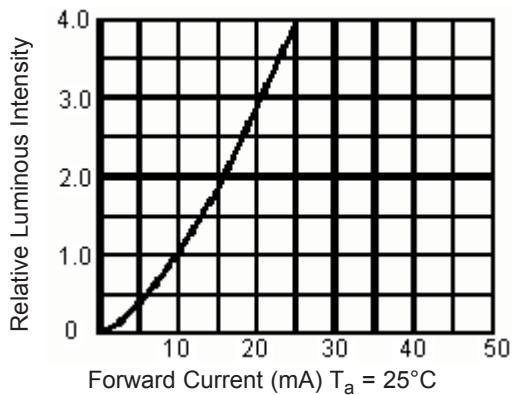
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Green (GaP $\lambda_P = 568\text{nm}$)

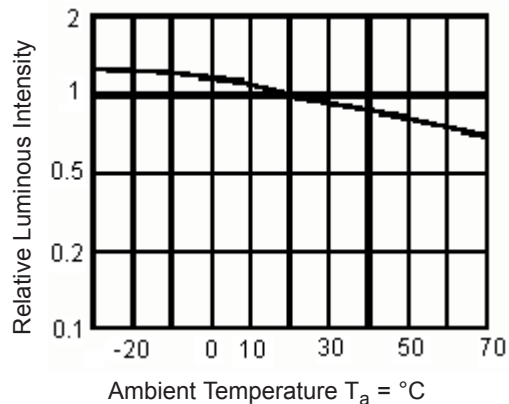
Forward Current vs. Forward Voltage



Forward Current Derating Curve



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature

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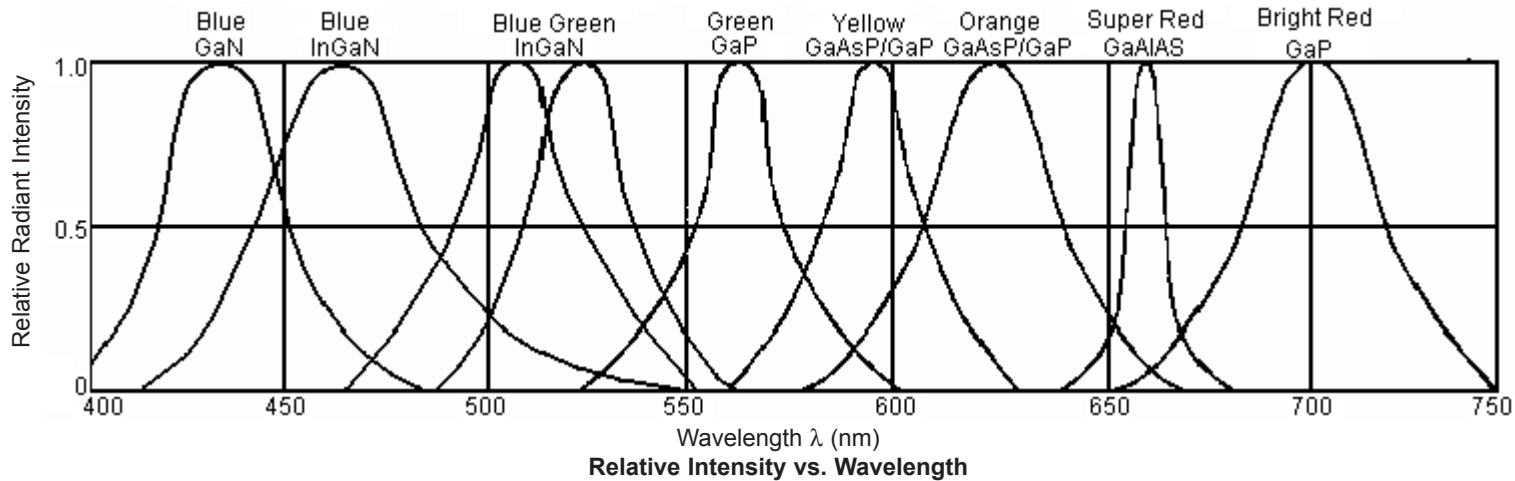


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Part Number Table

Description	Part Number
LED, 2mm x 5mm, Hi-Red/Green	MCL239SRGW

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

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