

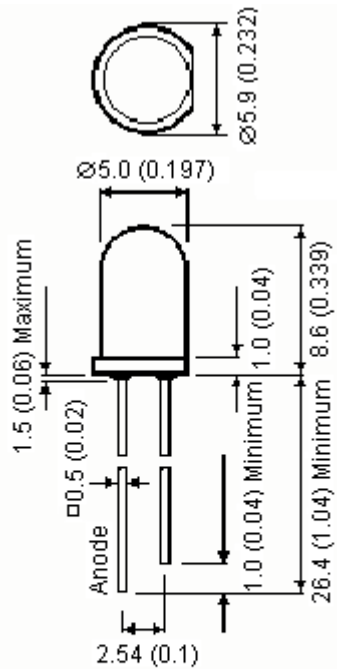


PART NO.

MCL053HPD/12

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Geetha	26/5/08	Suresh	26/5/08	G. C	10/6/08



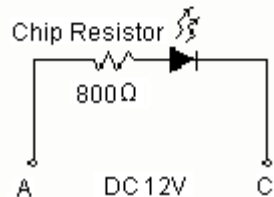
Specifications:

Dice material : GaP.
 Emitted color : Red.
 Lens color : Red diffused.
 Peak wavelength : 697nm.
 Viewing angle : 45 degrees.
 Luminous intensity (IV) : 2.8mcd.



Electrical/Optical Characteristics at T_a = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	1.3	2.8	4.2	mcd	IF = 10mA
Viewing Angle	2θ 1/2	-	45	-	degrees	
Peak Emission Wavelength	• λ _p	-	697	-	nm	-
Dominant Wavelength	• λ _d	-	650	-		-
Spectral Line Half-Width	Δλ	-	90	-		-
Forward Voltage	VF	1.7	2.1	2.6	V	IF = 10mA
Power Dissipation	Pd	-	-	45	-	-
Peak Forward Current (Duty 1/10 at 1KHz)	IF (Peak)	-	-	50	-	-
Recommended Operating Current	IF (Rec)	-	10	-	mA	-



Dimensions : Millimetres (Inches)

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DRAWN BY:	DATE:
Geetha	26/05/08
CHECKED BY:	DATE:
Suresh	26/05/08
APPROVED BY:	DATE:
G.Cook	10/06/08

DRAWING TITLE:

5.0mm Round With Chip Resistor Built in LED Lamp-Bright Red

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001161	L053HPD-12_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 1 OF 4	



PART NO.

MCL053HPD/12

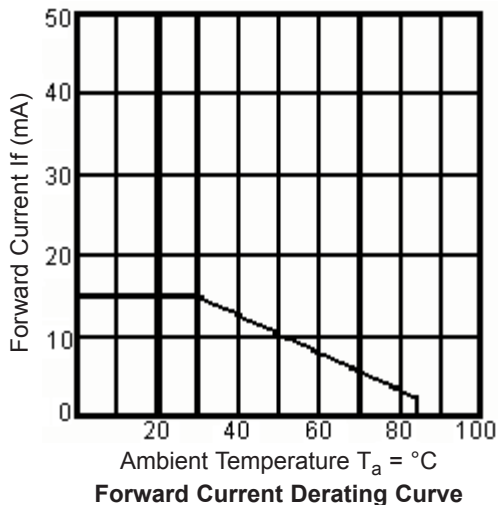
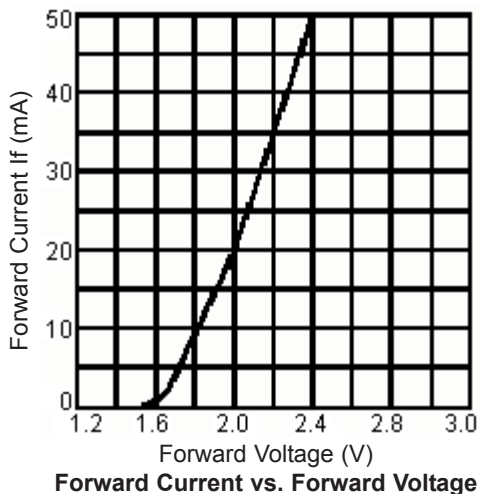
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Absolute Maximum Ratings (T_a = 25°C)

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

Bright Red(GaP λ_P = 697nm)



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SIZE A	DWG NO. M10001161	ELECTRONIC FILE L053HPD-12_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 4



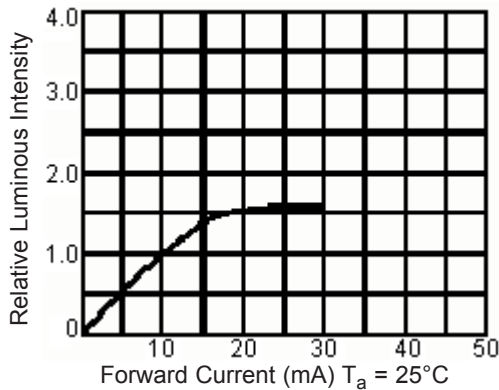
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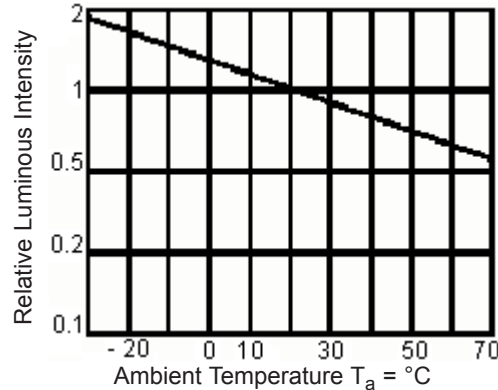
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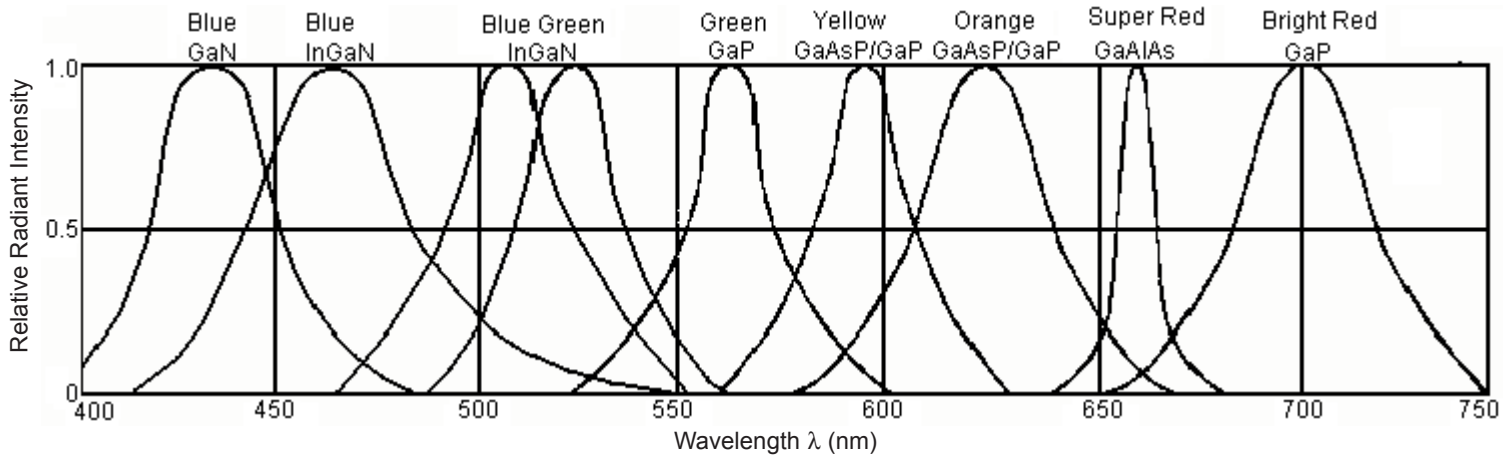
Bright Red (GaP $\lambda_P = 697\text{nm}$)



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature



Relative Intensity vs. Wavelength

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Part Number Table

Description	Part Number
LED, 5mm, 12V, 36°, BT-Red	MCL053HPD/12

<http://www.farnell.com>

<http://www.newark.com>

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

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