



PART NO.

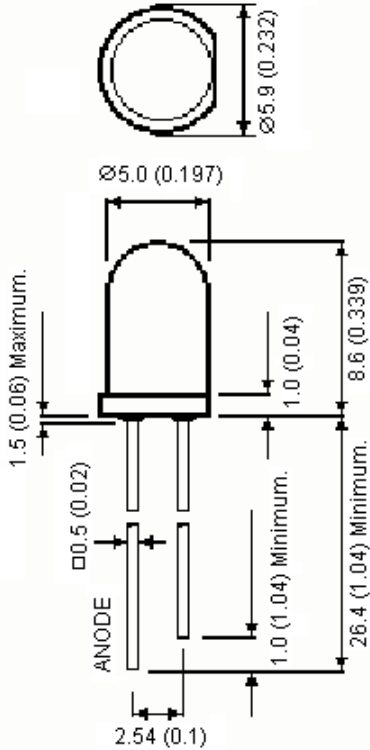
MCL053MT

REVISIONS

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

Specifications:

Dice material : GaAsP on GaP.
 Emitted color : Hi-eff red.
 Lens color : Red transparent.
 Peak wavelength : 635nm.
 Viewing angle : 16 degrees.
 Luminous intensity (IV) : 55mcd.



Dimensions : Millimetres (Inches)

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

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	30	55	80	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	16	-	degrees	
Peak Emission Wavelength	λ_p	-	635	-	nm	-
Dominant Wavelength	λ_D	-	625	-		-
Spectral Line Half-Width	$\Delta\lambda$	-	45	-		-
Forward Voltage	VF	1.6	2.0	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:
Rekha	26/05/08
CHECKED BY:	DATE:
Suresh	26/05/08
APPROVED BY:	DATE:
G.Cook	10/06/08

DRAWING TITLE:

5.0mm Round LED Lamp - HE Red

SIZE A	DWG NO.	M10001133	ELECTRONIC FILE L053MT_DWG	REV A
	SCALE: NTS			



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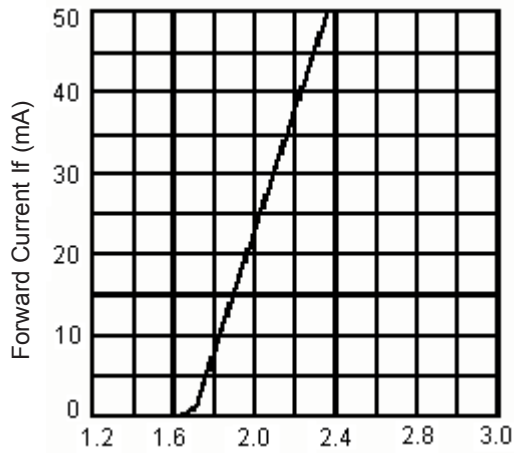
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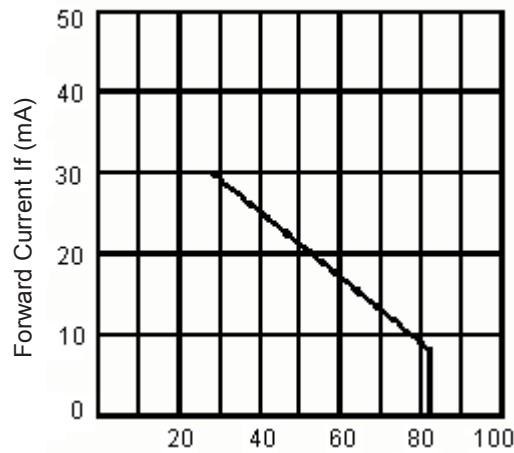
Absolute Maximum Ratings (T_a = 25°C)

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

Orange (GaAsP/CaP λ_P = 635nm)



Forward Current vs. Forward Voltage



Forward Current Derating Curve

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5.0mm Round LED Lamp - HE Red

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SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 4



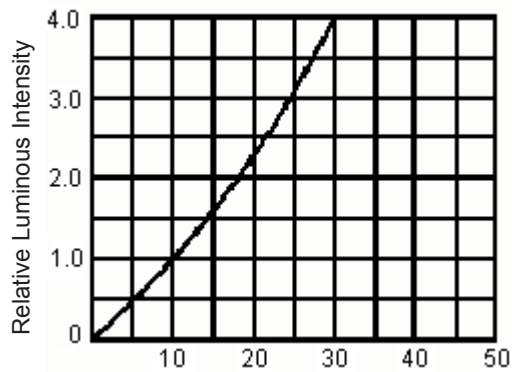
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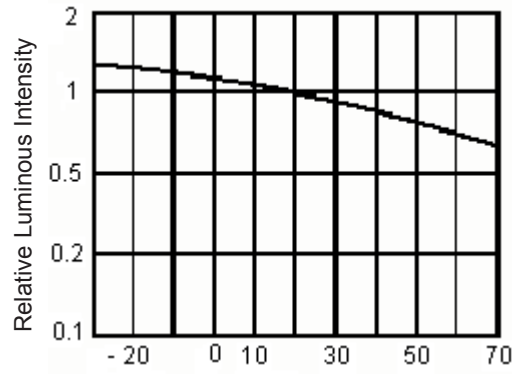
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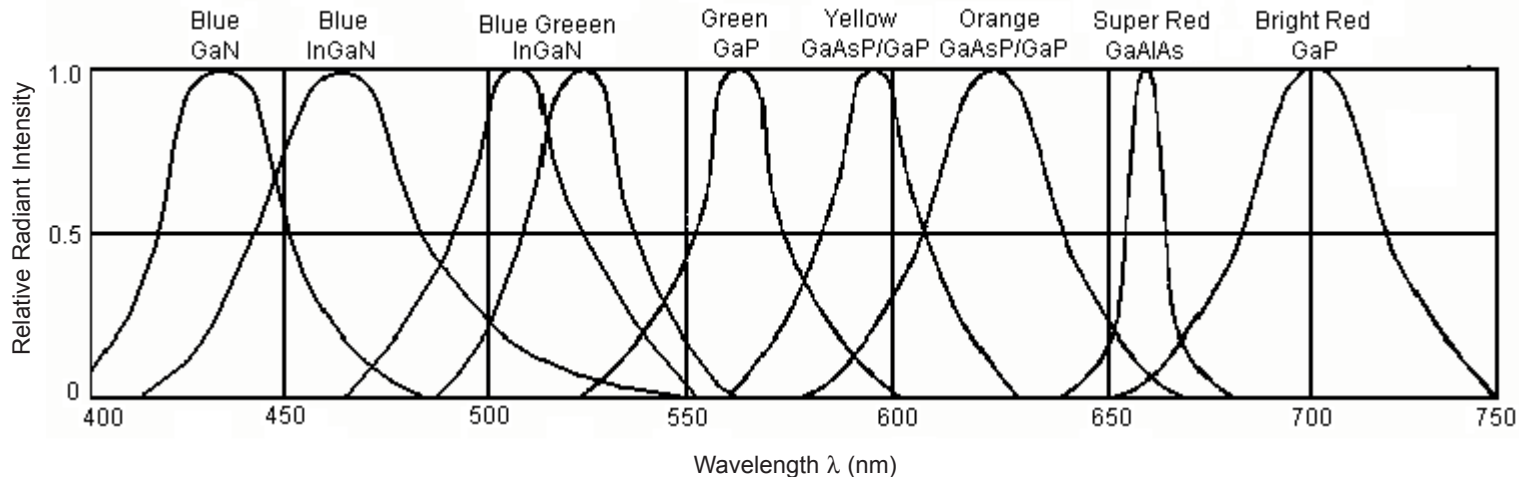
Orange (GaAsP/CaP $\lambda_P = 635\text{nm}$)



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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A	M10001133	L053MT_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 3 OF 4	



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Part Number Table

Description	Part Number
LED, 5MM, 16°, HE-Red	MCL053MT

<http://www.farnell.com>

<http://www.newark.com>

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

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5.0mm Round LED Lamp - HE Red

SIZE
A

DWG NO.

M10001133

ELECTRONIC FILE
L053MT_DWG

REV
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4