



PART NO.

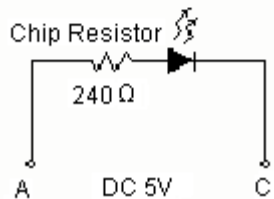
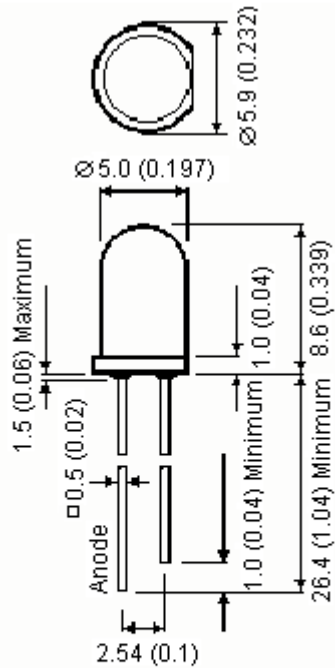
MCL053HAD/5

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Rekha	29/5/08	Suresh	29/5/08	G. C	13/6/08

Specifications:

Dice material : GaAsP on GaP.  
 Emitted color : Orange.  
 Lens color : Orange diffused.  
 Peak wavelength : 635nm.  
 Viewing angle : 45 degrees.  
 Luminous intensity (IV) : 16mcd.



Dimensions : Millimetres (Inches)

Electrical/Optical Characteristics at T<sub>a</sub> = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	9	16	25	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	45	-	degrees	
Peak Emission Wavelength	• λ <sub>p</sub>	-	635	-	nm	-
Dominant Wavelength	• λ <sub>d</sub>	-	625	-		-
Spectral Line Half-Width	Δλ	-	45	-		-
Forward Voltage	V <sub>F</sub>	1.6	2.0	2.6	V	IF = 20mA
Power Dissipation	P <sub>d</sub>	-	-	85	-	-
Peak Forward Current (Duty 1/10 at 1KHz)	IF (Peak)	-	-	100	-	-
Recommended Operating Current	IF (Rec)	-	20	-	mA	-

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**TOLERANCES:**  
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<b>DRAWN BY:</b>	<b>DATE:</b>
Rekha	29/05/08
<b>CHECKED BY:</b>	<b>DATE:</b>
Suresh	29/05/08
<b>APPROVED BY:</b>	<b>DATE:</b>
G.Cook	13/06/08

**DRAWING TITLE:**

5.0mm Round With Chip Resistor Built in LED Lamp-Orange

<b>SIZE</b> A	<b>DWG NO.</b> M10001173	<b>ELECTRONIC FILE</b> MCL053HAD/5_DWG	<b>REV</b> A
<b>SCALE:</b> NTS		<b>U.O.M.:</b> mm (Inches)	<b>SHEET:</b> 1 OF 4



PART NO.

MCL053HAD/5

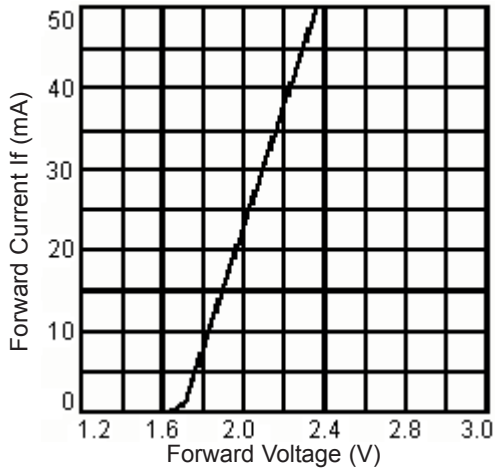
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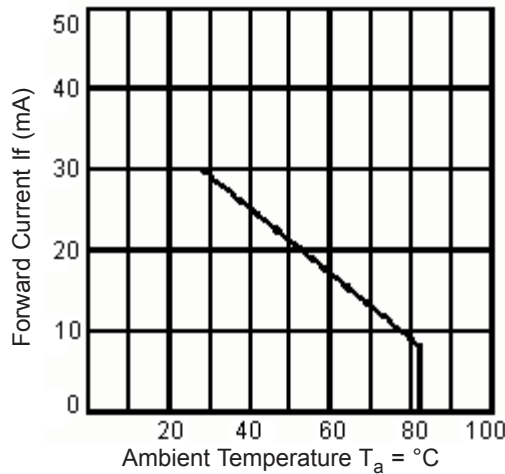
**Absolute Maximum Ratings (T<sub>a</sub> = 25°C)**

Reverse Voltage	5 Volt
Reverse Current	10µA (V <sub>R</sub> = 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<sub>P</sub> = 635nm)**



Forward Current vs. Forward Voltage



Forward Current Derating Curve

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**5.0mm Round With Chip Resistor Built in LED Lamp-Orange**

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<b>SCALE: NTS</b>		<b>U.O.M.: mm (Inches)</b>	<b>SHEET: 2 OF 4</b>



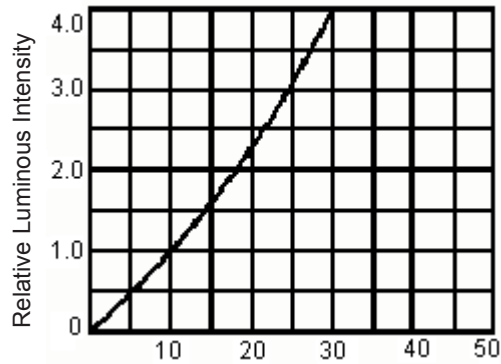
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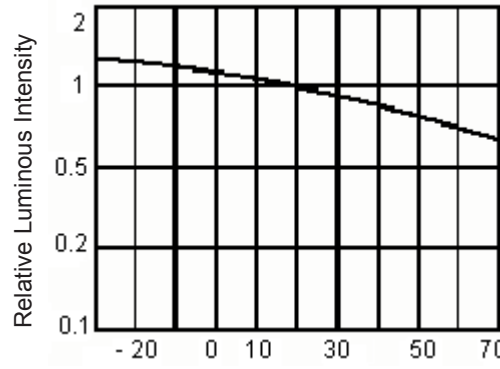
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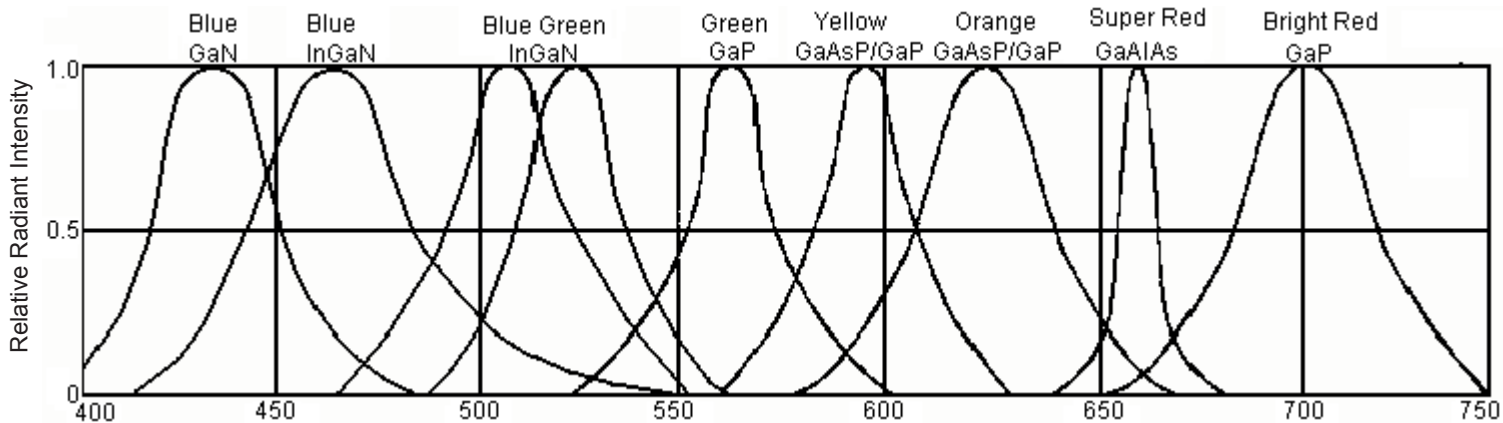
Orange (GaAsP/CaP  $\lambda_P = 635\text{nm}$ )



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



Relative Intensity vs. Wavelength

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G.Cook	13/06/08

DRAWING TITLE:

5.0mm Round With Chip Resistor Built in LED Lamp-Orange

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001173	MCL053HAD/5_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 3 OF 4	



PART NO.

MCL053HAD/5

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Part Number Table

Description	Part Number
LED, 5mm, 5V, 36°, Orange	MCL053HAD/5

<http://www.farnell.com>

<http://www.newark.com>

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

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SIZE  
A

DWG NO.

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ELECTRONIC FILE  
MCL053HAD/5\_DWG

REV  
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4