

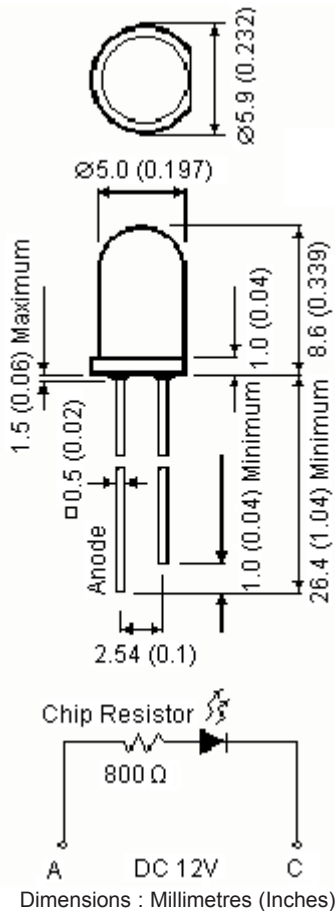


PART NO.

MCL053HYD/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 : GaAsP on GaP.  
 Emitted color : Yellow.  
 Lens color : Yellow diffused.  
 Peak wavelength : 587nm.  
 Viewing angle : 45 degrees.  
 Luminous intensity (IV) : 15mcd.



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

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	12	15	28	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	45	-	degrees	
Peak Emission Wavelength	• λ <sub>p</sub>	-	587	-	nm	-
Dominant Wavelength	• λ <sub>d</sub>	-	590	-		-
Spectral Line Half-Width	Δλ	-	35	-		-
Forward Voltage	V <sub>F</sub>	1.7	2.1	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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Geetha	26/05/08
<b>CHECKED BY:</b>	<b>DATE:</b>
Suresh	26/05/08
<b>APPROVED BY:</b>	<b>DATE:</b>
G.Cook	10/06/08

<b>DRAWING TITLE:</b>			
5.0mm Round With Chip Resistor Built in LED Lamp-Yellow			
<b>SIZE</b>	<b>DWG NO.</b>	<b>ELECTRONIC FILE</b>	<b>REV</b>
A	M10001163	L053HYD-12_DWG	A
<b>SCALE:</b> NTS		<b>U.O.M.:</b> mm (Inches)	<b>SHEET:</b> 1 OF 4



PART NO.

MCL053HYD/12

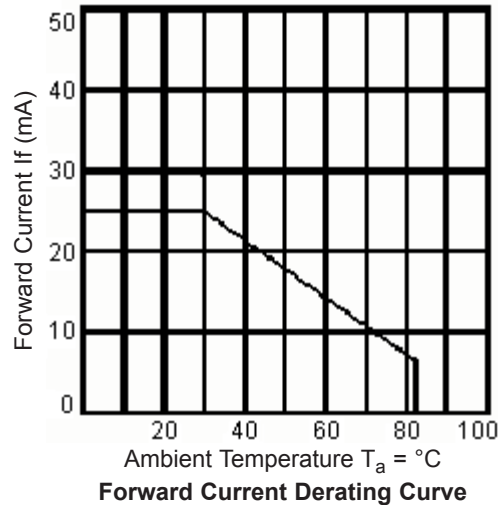
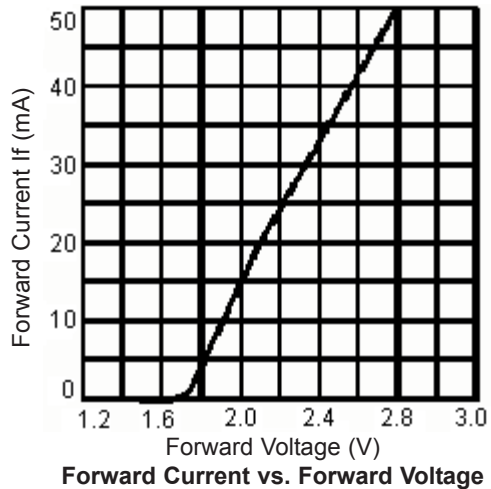
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**Absolute Maximum Ratings (T<sub>a</sub> = 25°C)**

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

**Yellow (GaAsP/GaP λ<sub>P</sub> = 587nm)**



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<b>APPROVED BY:</b>	<b>DATE:</b>
G.Cook	10/06/08

**DRAWING TITLE:**

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

<b>SIZE</b> A	<b>DWG NO.</b> M10001163	<b>ELECTRONIC FILE</b> L053HYD-12_DWG	<b>REV</b> A
<b>SCALE: NTS</b>		<b>U.O.M.: mm (Inches)</b>	<b>SHEET: 2 OF 4</b>



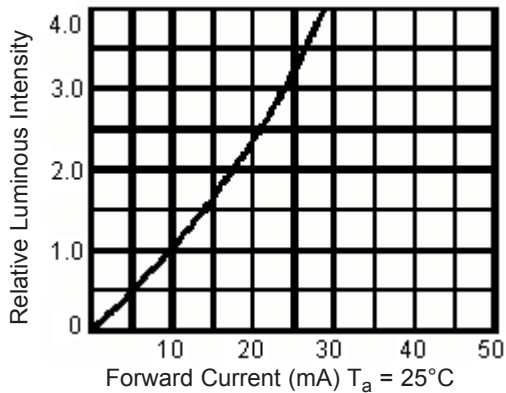
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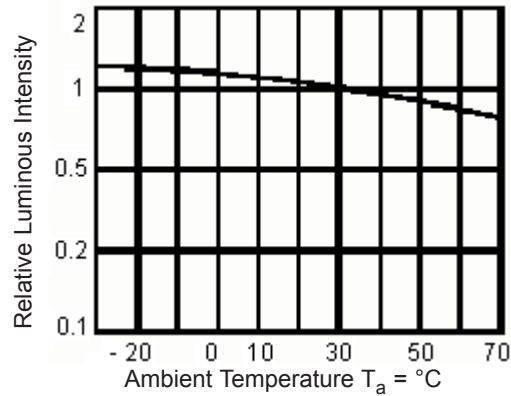
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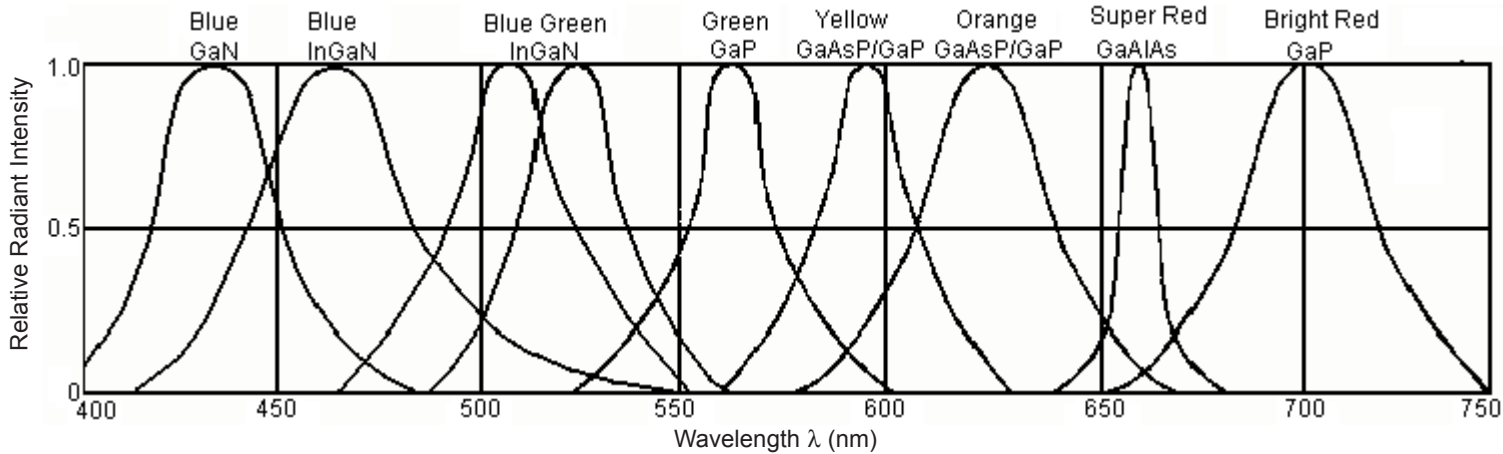
Yellow (GaAsP/GaP  $\lambda_P = 587\text{nm}$ )



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature



Relative Intensity vs. Wavelength

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G.Cook	10/06/08

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



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Part Number Table

Description	Part Number
LED, 5mm, 12V, 36°, Yellow	MCL053HYD/12

<http://www.farnell.com>

<http://www.newark.com>

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

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