

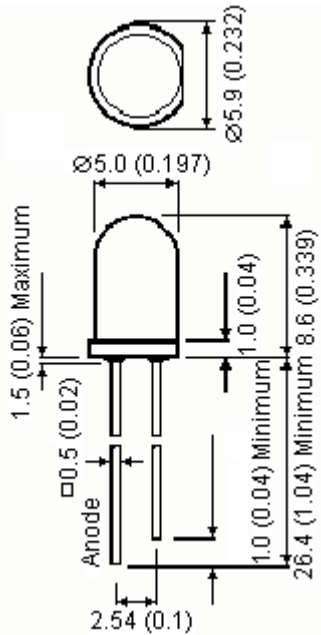


PART NO.

MCL053SWC-YH1

REVISIONS

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



Dimensions : Millimetres (Inches)

Specifications:

Dice material : InGaN.  
 Emitted colour : White.  
 Lens colour : Water clear.  
 Peak wavelength :  $\lambda = 0.32$ .  
 Viewing angle : 16 degrees.  
 Luminous intensity (IV) : 10,000mcd.



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

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	4500	10,000	15,000	mcd	IF = 20mA
Viewing Angle	2 $\theta$ 1/2	-	16	-	degrees	
Peak Emission Wavelength	X	-	0.30	-	nm	-
Dominant Wavelength	Y	-	0.32	-		-
Spectral Line Half-Width	$\Delta\lambda$	-	-	-		-
Forward Voltage	VF	2.7	3.4	4.0	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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**TOLERANCES:**  
  
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<b>DRAWN BY:</b>	<b>DATE:</b>
Geetha	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 LED Lamp - White

<b>SIZE</b> A	<b>DWG NO.</b> M10001191	<b>ELECTRONIC FILE</b> L053SWC-YH1_DWG	<b>REV</b> A
<b>SCALE:</b> NTS		<b>U.O.M.:</b> mm (Inches)	<b>SHEET:</b> 1 OF 4



PART NO.

MCL053SWC-YH1

REVISIONS

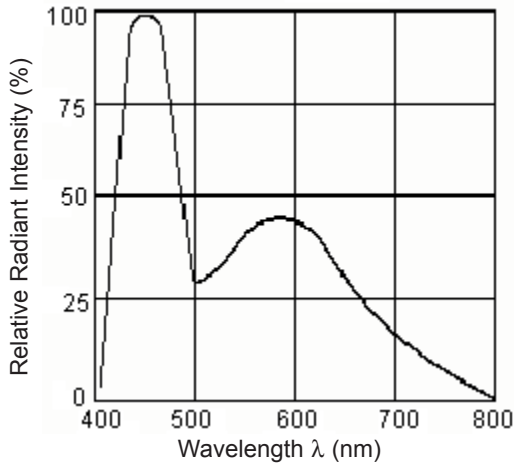
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**Absolute Maximum Ratings (T<sub>a</sub> = 25°C)**

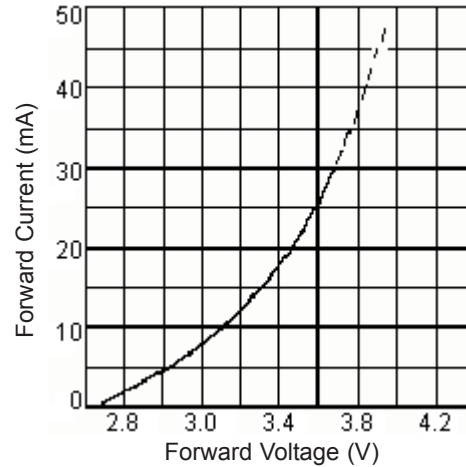
Reverse Voltage	5 Volt
Reverse Current	10µA (V <sub>R</sub> = 5V)
Electrostatic Discharge (ESD)	200 Volt
Operating Temperature Range	-40°C to 85°C
Storage Temperature Range	-40°C to 100°C
Lead Soldering Temperature Range 1.6mm (1/16 inch) from body	260°C for 5 Seconds

**White Typical Electrical Optical Characteristics Curves (T<sub>a</sub> = 25°C Ambient Temperature Unless Otherwise Noted)**

Relative Radiant Intensity vs. Wavelength



Forward Current vs. Forward Voltage



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**APPROVED BY:**

G.Cook

**DATE:**

29/05/08

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**DATE:**

13/06/08

**DRAWING TITLE:**

**5.0mm Round LED Lamp - White**

SIZE  
**A**

DWG NO.

**M10001191**

SCALE: NTS

U.O.M.: mm (Inches)

ELECTRONIC FILE  
L053SWC-YH1\_DWG

REV  
**A**

SHEET: 2 OF 4



PART NO.

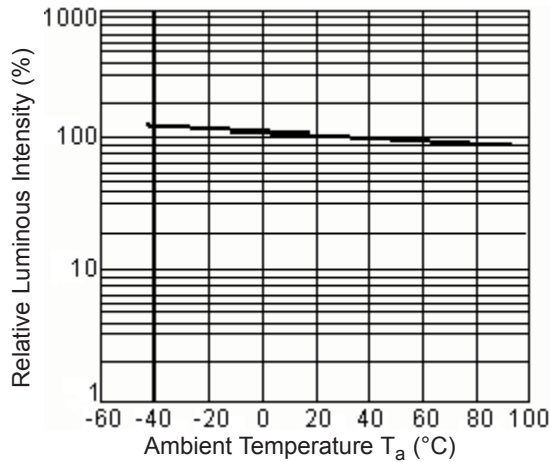
MCL053SWC-YH1

REVISIONS

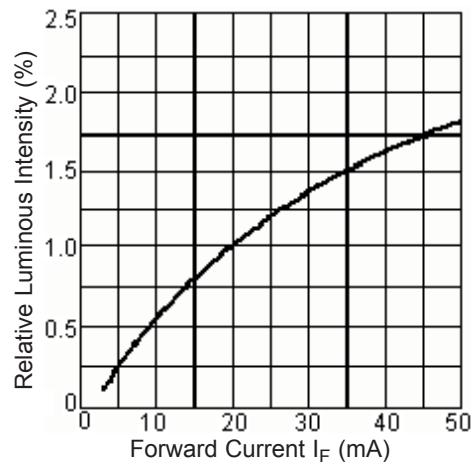
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White Typical Electrical Optical Characteristics Curves ( $T_a = 25^\circ\text{C}$  Ambient Temperature Unless Otherwise Noted)

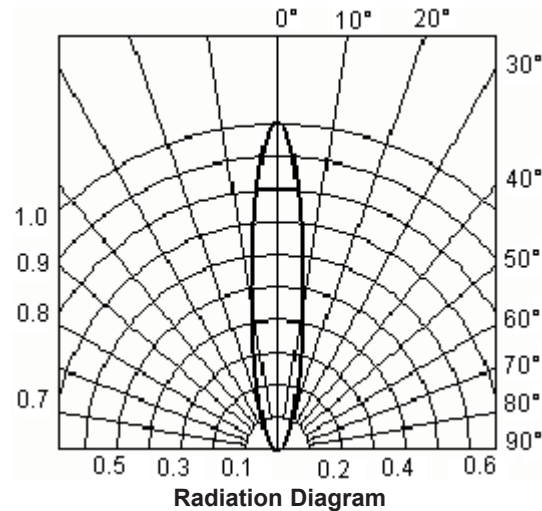
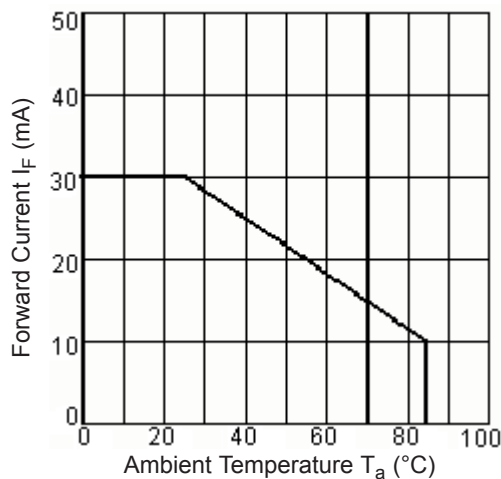
Relative Luminous Intensity vs. Ambient Temperature



Relative Luminous Intensity vs. Forward Current



Forward Current Derating Curve



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G.Cook	13/06/08

**DRAWING TITLE:**

5.0mm Round LED Lamp - White

<b>SIZE</b> A	<b>DWG NO.</b> M10001191	<b>ELECTRONIC FILE</b> L053SWC-YH1_DWG	<b>REV</b> A
<b>SCALE: NTS</b>		<b>U.O.M.: mm (Inches)</b>	<b>SHEET: 3 OF 4</b>



PART NO.

MCL053SWC-YH1

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Part Number Table

Description	Part Number
LED, 5mm, 16°, White	MCL053SWC-YH1

<http://www.farnell.com>

<http://www.newark.com>

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

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DRAWING TITLE:

5.0mm Round LED Lamp - White

SIZE  
A

DWG NO.

M10001191

ELECTRONIC FILE  
L053SWC-YH1\_DWG

REV  
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4