

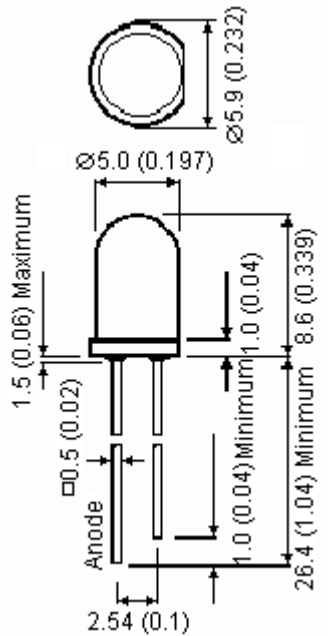


PART NO.

MCL053SWC-WH1

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 color : White.
 Lens color : Water clear.
 Peak wavelength : $\lambda = 0.31$.
 Viewing angle : 16 degrees.
 Luminous intensity (IV) : 9000mcd.



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

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	4500	9000	13500	mcd	IF = 20mA
Viewing Angle	2 θ 1/2	-	16	-	degrees	
Peak Emission Wavelength	X	-	0.29	-	nm	-
Dominant Wavelength	Y	-	0.31	-		-
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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DRAWN BY:	DATE:
Geetha	29/05/08
CHECKED BY:	DATE:
Suresh	29/05/08
APPROVED BY:	DATE:
G.Cook	13/06/08

DRAWING TITLE:

5.0mm Round LED Lamp - Pure White

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001190	L053SWC-WH1_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 1 OF 4



PART NO.

MCL053SWC-WH1

REVISIONS

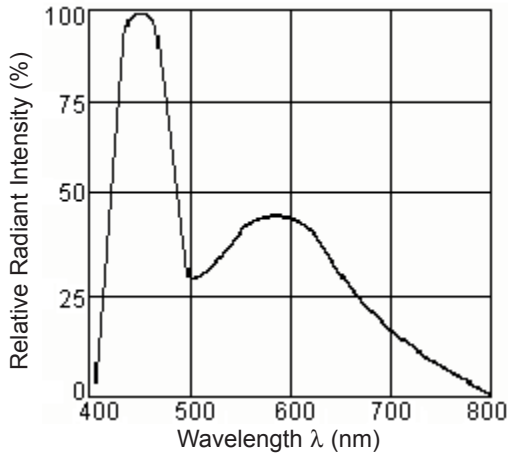
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Absolute Maximum Ratings (T_a = 25°C)

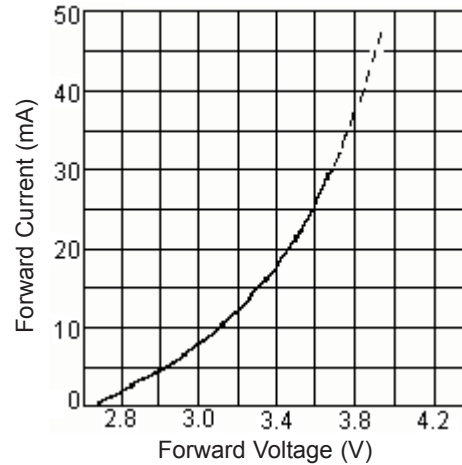
Reverse Voltage	5 Volt
Reverse Current	10µA (V _R = 5V)
Electrostatic Discharge (ESD)	200 Volt
Operating Temperature Range	-40°C to 85°C
Storage Temperature Range	-40°C to 100°C
Lead Soldering Temperature Range 1.6mm (1/16 inch) from body	260°C for 5 Seconds

White Typical Electrical Optical Characteristics Curves (T_a = 25°C Ambient Temperature Unless Otherwise Noted)

Relative Radiant Intensity vs. Wavelength



Forward Current vs. Forward Voltage



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CHECKED BY:	DATE:
Suresh	29/05/08
APPROVED BY:	DATE:
G.Cook	13/06/08

DRAWING TITLE:

5.0mm Round LED Lamp - Pure White

SIZE A	DWG NO. M10001190	ELECTRONIC FILE L053SWC-WH1_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 4



PART NO.

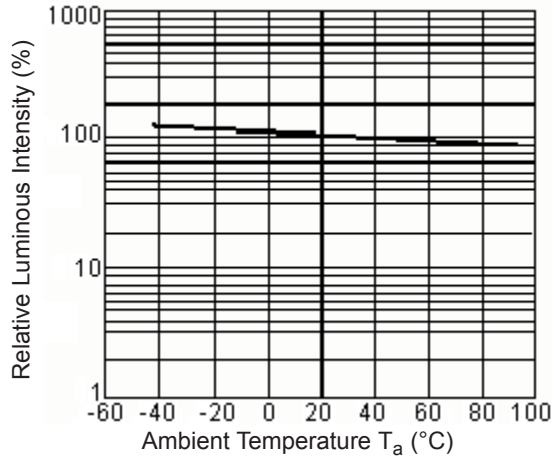
MCL053SWC-WH1

REVISIONS

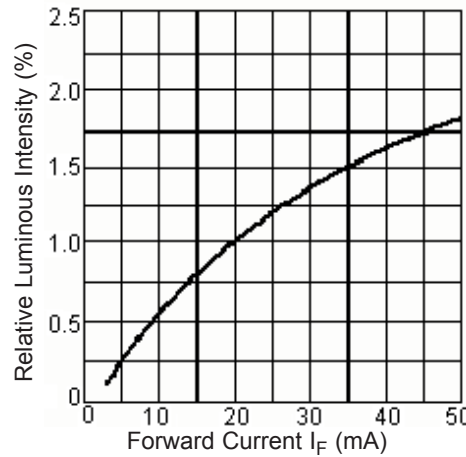
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-	A	RELEASED	Geetha	29/5/08	Suresh	29/5/08	G. C	13/6/08

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

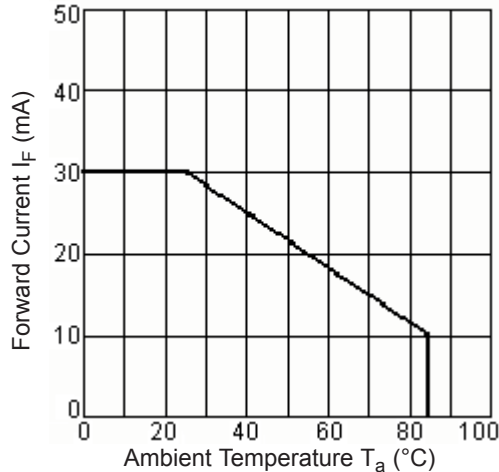
Relative Luminous Intensity vs. Ambient Temperature



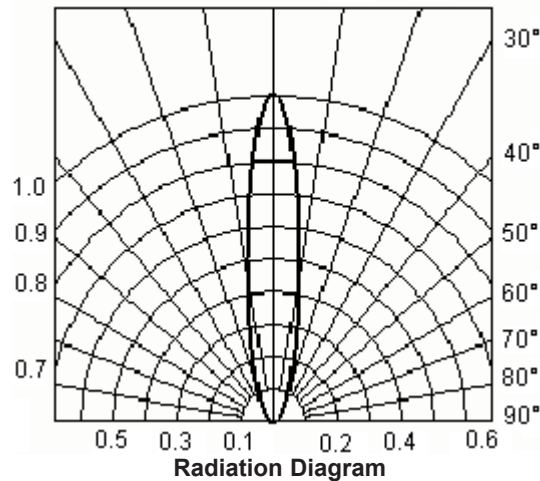
Relative Luminous Intensity vs. Forward Current



Forward Current Derating Curve



0° 10° 20°



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Suresh	29/05/08
APPROVED BY:	DATE:
G.Cook	13/06/08

DRAWING TITLE:			
5.0mm Round LED Lamp - Pure White			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001190	L053SWC-WH1_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 3 OF 4



PART NO.

MCL053SWC-WH1

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

Part Number Table

Description	Part Number
LED, 5mm, 16°, Pure White	MCL053SWC-WH1

<http://www.farnell.com>

<http://www.newark.com>

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

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Geetha

CHECKED BY:

Suresh

APPROVED BY:

G.Cook

DATE:

29/05/08

DATE:

29/05/08

DATE:

13/06/08

DRAWING TITLE:

5.0mm Round LED Lamp - Pure White

SIZE
A

DWG NO.

M10001190

SCALE: NTS

U.O.M.: mm (Inches)

ELECTRONIC FILE

L053SWC-WH1_DWG

REV

A

SHEET: 4 OF 4