



PART NO.

MCL514MD

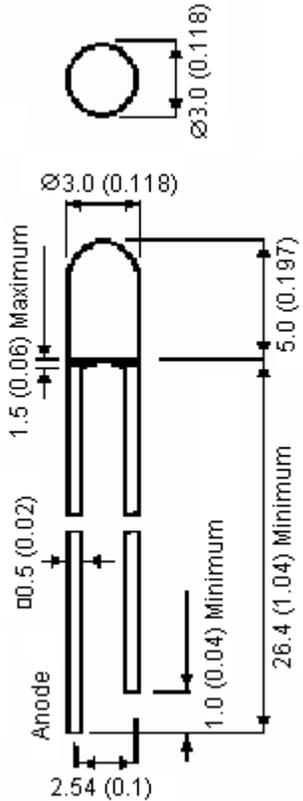
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Veena	27/6/08	Suresh	27/6/08	G. C	14/7/08



Specifications:

Dice material : GaAsP on GaP.
 Emitted color : HI-eff red.
 Lens color : Red diffused.
 Peak wavelength : 635nm.
 Viewing angle : 76 degrees.
 Luminous intensity (IV) : 9.5mcd.



Dimensions : Millimetres (Inches)

Electrical/Optical Characteristics at T_a = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	5.0	9.5	15	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	76	-	degrees	
Peak Emission Wavelength	• λ _p	-	635	-	nm	-
Dominant Wavelength	• λ _D	-	625	-		-
Spectral Line Half-Width	Δλ	-	45	-		-
Forward Voltage	V _F	1.6	2.0	2.6	V	IF = 20mA
Power Dissipation	P _d	-	-	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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DRAWN BY:	DATE:
Veena	27/06/08
CHECKED BY:	DATE:
Suresh	27/06/08
APPROVED BY:	DATE:
G.Cook	14/07/08

DRAWING TITLE:

3.0mm Round LED Lamp - HE Red

SIZE A	DWG NO. M10001256	ELECTRONIC FILE L514MD_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 1 OF 4



PART NO.

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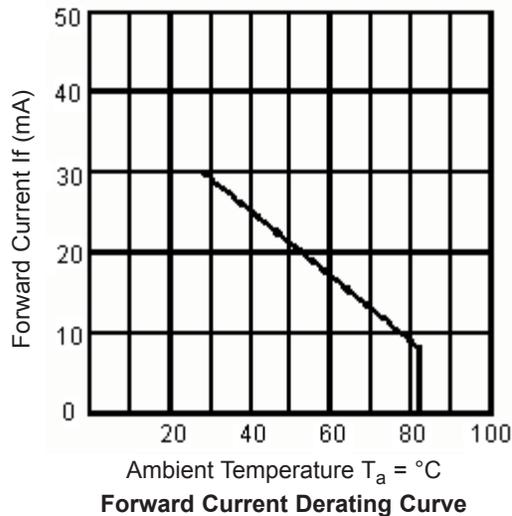
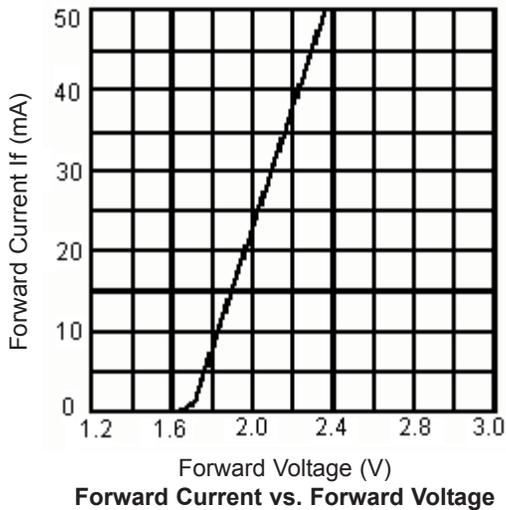
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Absolute Maximum Ratings (T_a = 25°C)

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)



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A	M10001256	L514MD_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 4



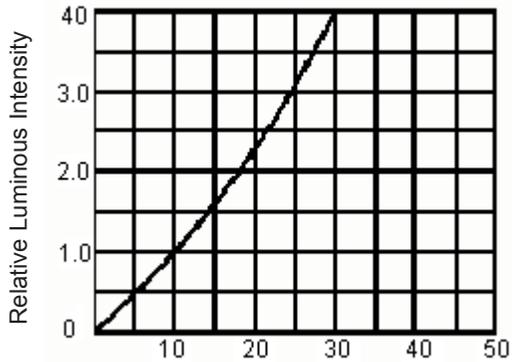
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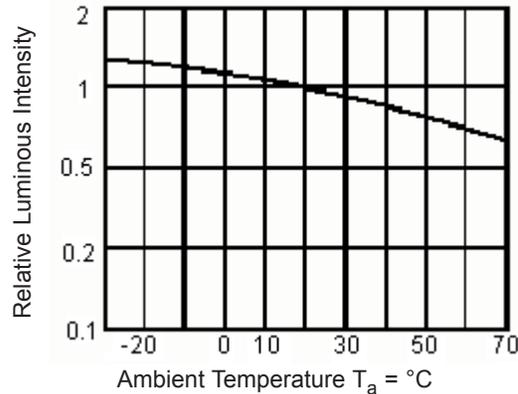
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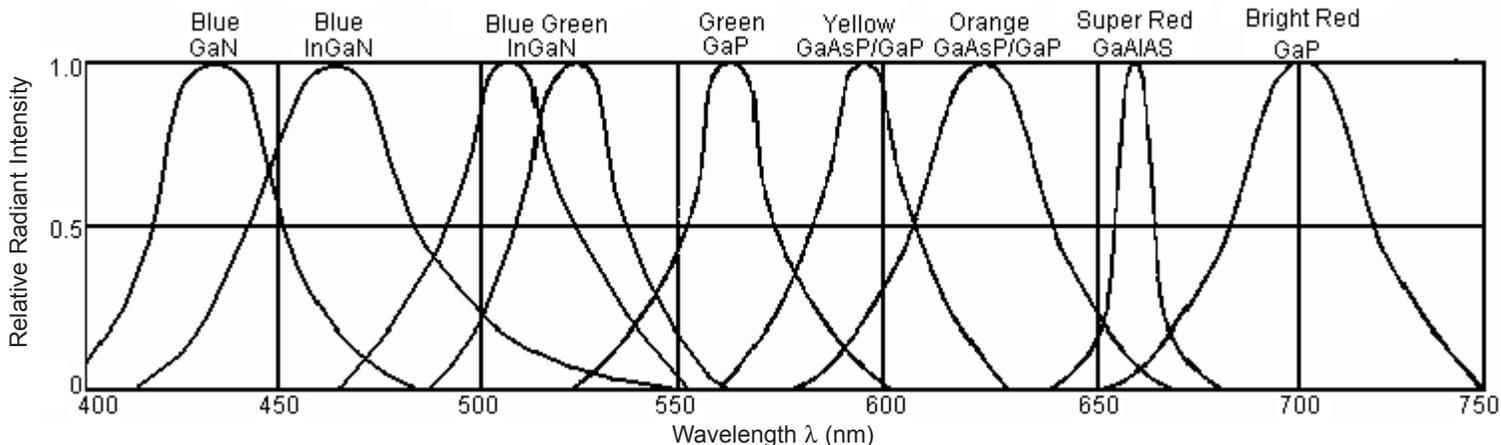
Orange (GaAsP/CaP $\lambda_P = 635\text{nm}$)



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



Relative Intensity vs. Wavelength

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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, 3mm, 70°, HE-Red	MCL514MD

<http://www.farnell.com>

<http://www.newark.com>

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

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3.0mm Round LED Lamp - HE Red

SIZE
A

DWG NO.

M10001256

ELECTRONIC FILE
L514MD_DWG

REV
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4