

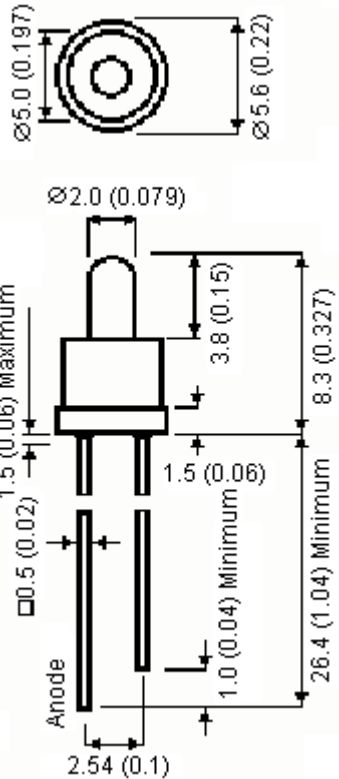


PART NO.

MCL223MD

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Veena	25/9/08	Suresh	25/9/08	Farnell	9/10/08



Dimensions : Millimetres (Inches)

Specifications:

Dice material : GaAsP on GaP.
 Emitted colour : Hi-eff red.
 Lens colour : Red diffused.
 Peak wavelength : 635nm.
 Viewing angle : 60 degrees.
 Luminous intensity (IV) : 7.8mcd.



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

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	3.5	7.8	11.5	mcd	IF = 20mA
Viewing Angle	2 θ 1/2	-	60	-	degrees	
Peak Emission Wavelength	λ_p	-	635	-	nm	-
Dominant Wavelength	λ_D	-	625	-		-
Spectral Line Half-width	$\Delta\lambda$	-	45	-		-
Forward Voltage	VF	1.6	2.0	2.6	V	IF = 20mA
Power Dissipation	Pd	-	-	85	mW	-
Peak Forward Current (Duty 1/10 at 1KHz)	IF (Peak)	-	-	100	mA	-
Recommended Operating Current	IF (Rec)	-	20	-		-

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Veena	25/09/08
CHECKED BY:	DATE:
Suresh	25/09/08
APPROVED BY:	DATE:
Farnell	9/10/08

DRAWING TITLE:

2.0mm Tower LED Lamp - HE-Red

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001746	L223MD_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 1 OF 4



PART NO.

MCL223MD

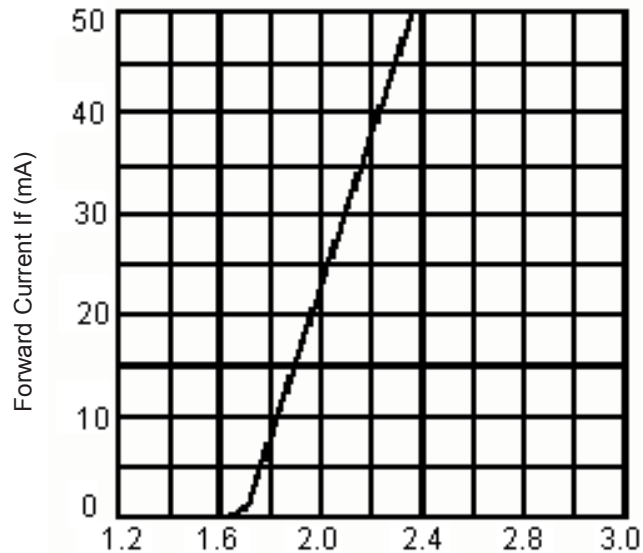
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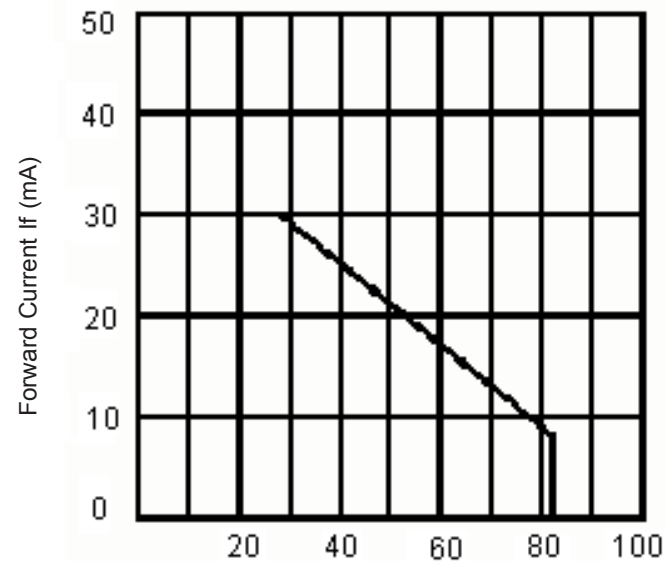
Absolute Maximum Ratings (T_a = 25°C)

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)



Forward Current vs. Forward Voltage



Forward Current Derating Curve

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2.0mm Tower LED Lamp - HE-Red

SIZE A	DWG NO. M10001746	ELECTRONIC FILE L223MD_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 4



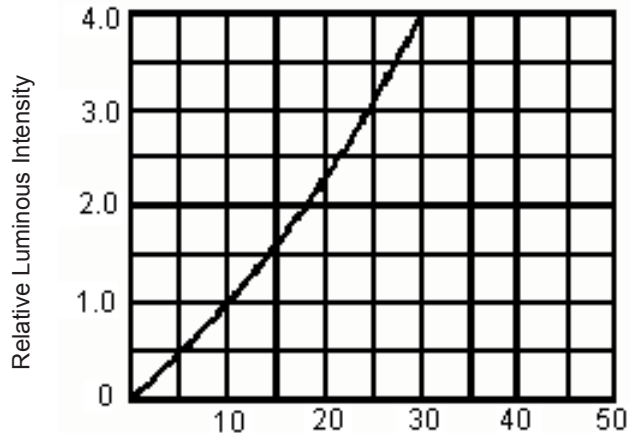
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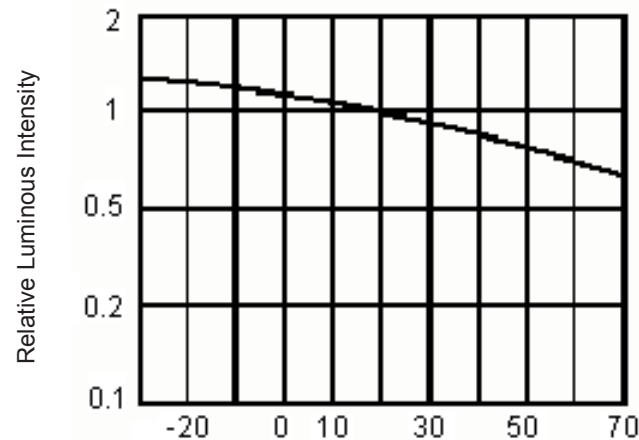
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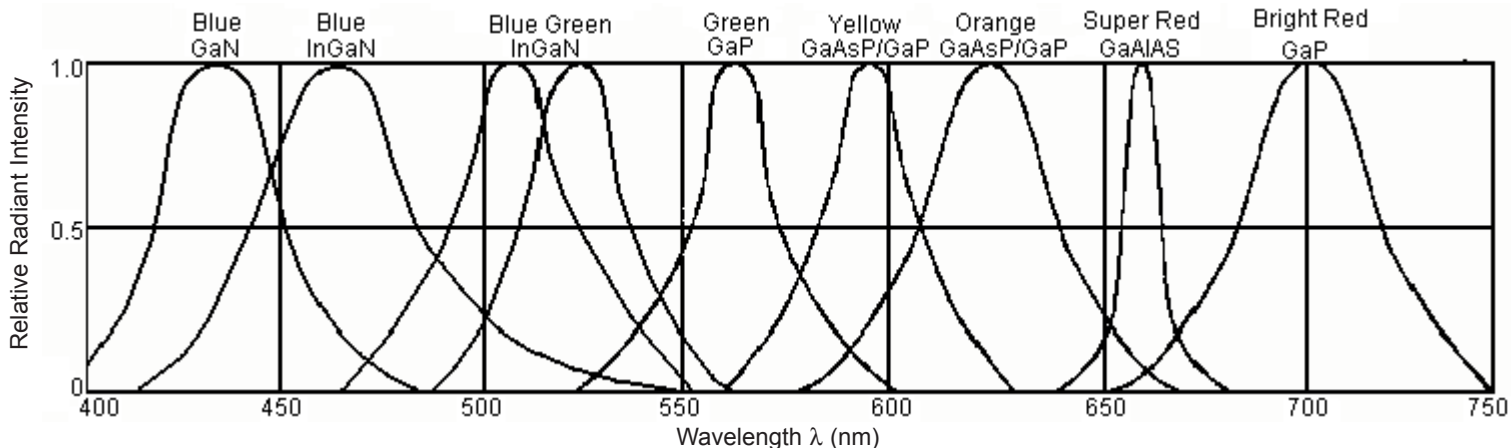
Orange (GaAsP/CaP $\lambda_P = 635\text{nm}$)



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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Part Number Table

Description	Part Number
LED, 2mm, 60°, He-Red	MCL223MD

<http://www.farnell.com>

<http://www.newark.com>

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

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DRAWING TITLE:

2.0mm Tower LED Lamp - HE-Red

SIZE
A

DWG NO.

M10001746

ELECTRONIC FILE
L223MD_DWG

REV
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4