

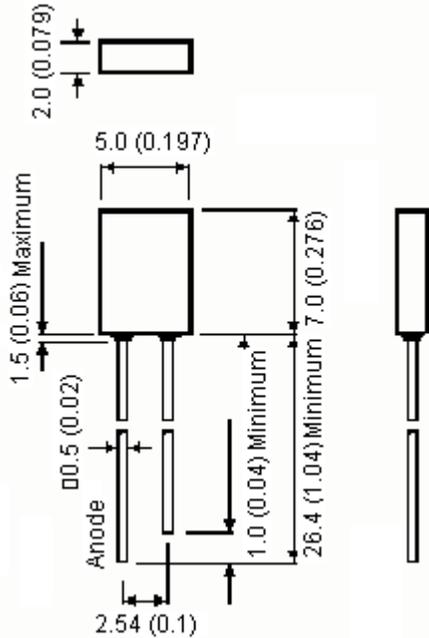


PART NO.

MCL453PD

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Geetha	28/5/08	Suresh	28/5/08	G. C	12/6/08



Dimensions : Millimetres (Inches)

Specifications:

Dice material : GaP.
 Emitted color : Hi-red.
 Lens color : Red diffused.
 Peak wavelength : 697nm.
 Viewing angle : 120 degrees.
 Luminous intensity (IV) : 1.2mcd.



Electrical/Optical Characteristics at T_a = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	0.5	1.2	1.6	mcd	IF = 10mA
Viewing Angle	2θ 1/2	-	120	-	degrees	
Peak Emission Wavelength	λ _p	-	697	-	nm	-
Dominant Wavelength	λ _d	-	650	-		-
Spectral Line Half-Width	Δλ	-	20	-		-
Forward Voltage	VF	1.7	2.1	2.6	V	IF = 10mA
Power Dissipation	Pd	-	-	45	-	-
Peak Forward Current (Duty 1/10 at 1KHz)	IF (Peak)	-	-	50	-	-
Recommended Operating Current	IF (Rec)	-	10	-	mA	-

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TOLERANCES:
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DRAWN BY:	DATE:
Geetha	28/05/08
CHECKED BY:	DATE:
Suresh	28/05/08
APPROVED BY:	DATE:
G.Cook	12/06/08

DRAWING TITLE:			
2.0mm x 5.0mm Rectangular LED Lamp - HI Red			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001139	L453PD_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 1 OF 4



PART NO.

MCL453PD

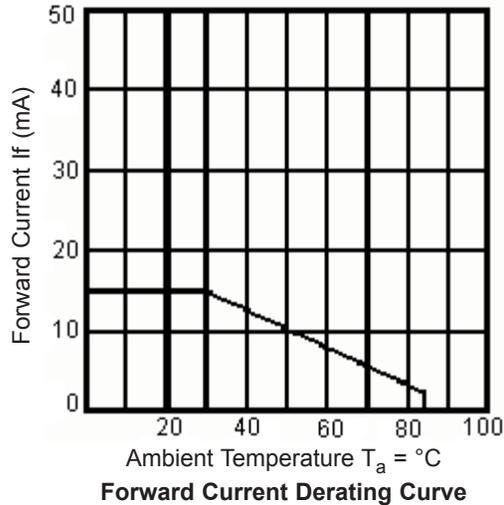
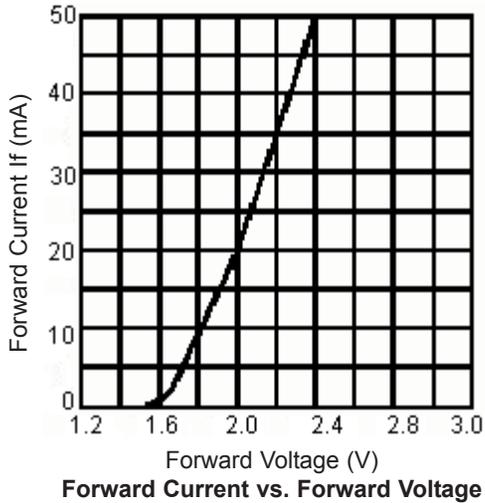
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Absolute Maximum Ratings (T_a = 25°C)

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

Bright Red (GaP λP = 697nm)



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G.Cook	12/06/08

DRAWING TITLE:
2.0mm x 5.0mm Rectangular LED Lamp - HI Red

SIZE A	DWG NO. M10001139	ELECTRONIC FILE L453PD_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 4



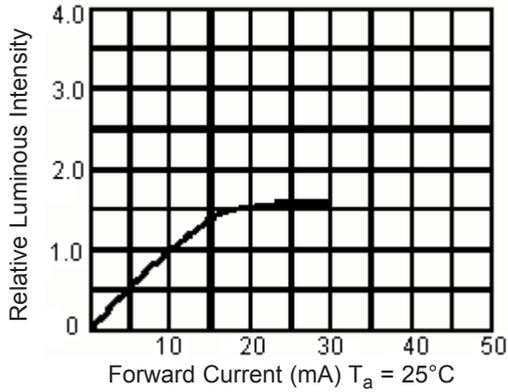
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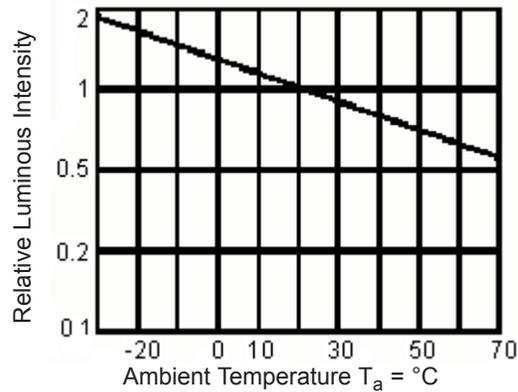
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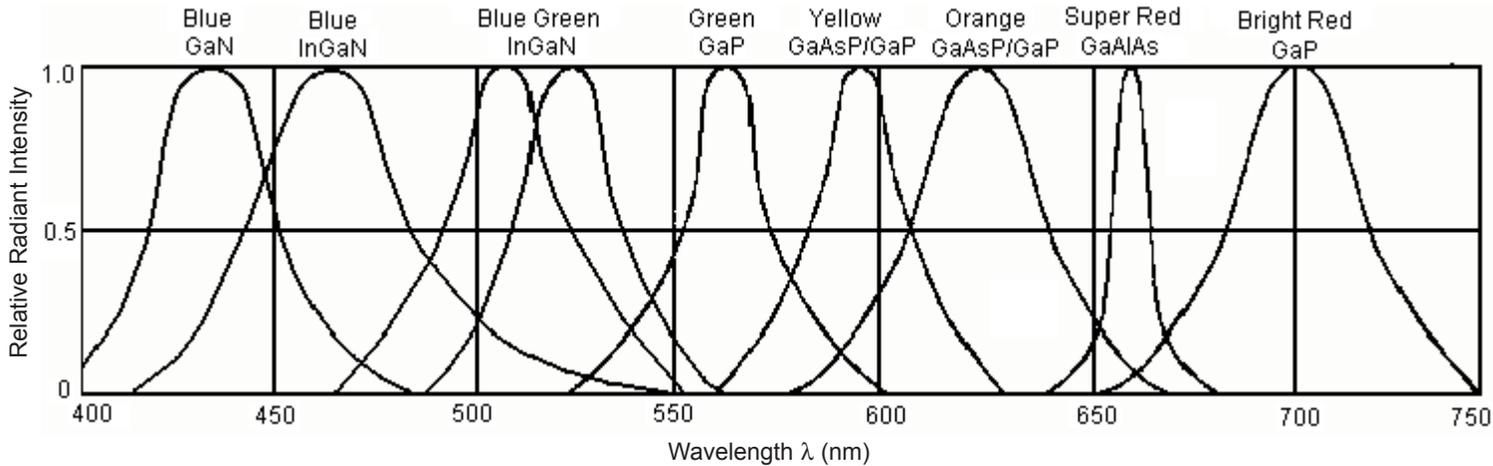
Bright Red (GaP $\lambda_P = 697\text{nm}$)



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature



Relative Intensity vs. Wavelength

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DRAWING TITLE:

2.0mm x 5.0mm Rectangular LED Lamp - HI Red

SIZE	DWG NO.	ELECTRONIC FILE	REV
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Part Number Table

Description	Part Number
LED, 2mmX5mm, 120°, HI-Red	MCL453PD

<http://www.farnell.com>

<http://www.newark.com>

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

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DRAWING TITLE:

2.0mm x 5.0mm Rectangular LED Lamp - HI Red

SIZE
A

DWG NO.

M10001139

ELECTRONIC FILE
L453PD_DWG

REV
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4