

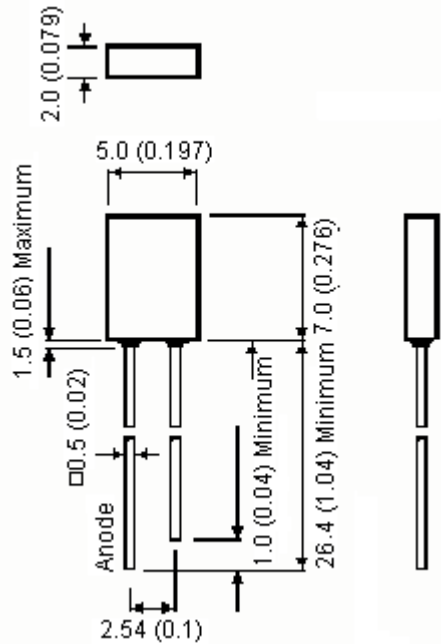


PART NO.

MCL453BD

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 : GaAsP on GaP.  
 Emitted color : Amber.  
 Lens color : Amber diffused.  
 Peak wavelength : 610nm.  
 Viewing angle : 120 degrees.  
 Luminous intensity (IV) : 3.6mcd.



Electrical/Optical Characteristics at T<sub>a</sub> = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	1.3	3.6	3.9	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	120	-	degrees	
Peak Emission Wavelength	• p	-	610	-	nm	-
Dominant Wavelength	• D	-	606	-		-
Spectral Line Half-Width	Δλ	-	40	-		-
Forward Voltage	VF	1.7	2.1	2.6	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:**  
  
**UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.**

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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:**  
**2.0mm x 5.0mm Rectangular LED Lamp - Amber**

<b>SIZE</b> A	<b>DWG NO.</b> M10001196	<b>ELECTRONIC FILE</b> L453BD_DWG	<b>REV</b> A
<b>SCALE: NTS</b>		<b>U.O.M.: mm (Inches)</b>	<b>SHEET: 1 OF 4</b>



PART NO.

MCL453BD

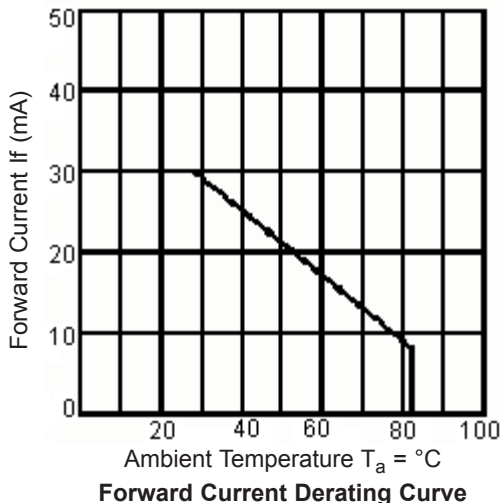
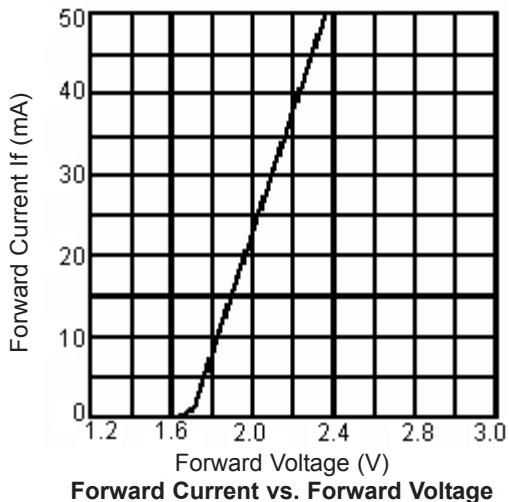
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**Absolute Maximum Ratings (T<sub>a</sub> = 25°C)**

Reverse Voltage	5 Volt
Reverse Current	10µA (V <sub>R</sub> = 5V)
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

**Amber (GaAsP/CaP λ<sub>P</sub> = 610nm)**



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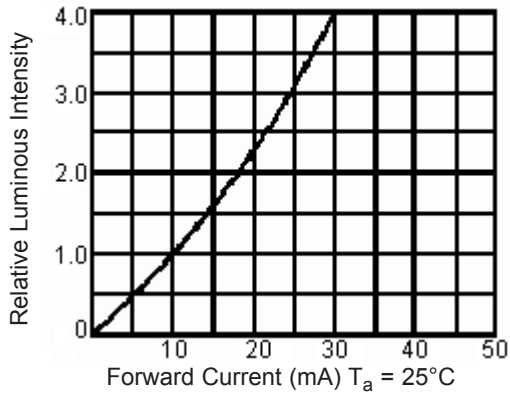
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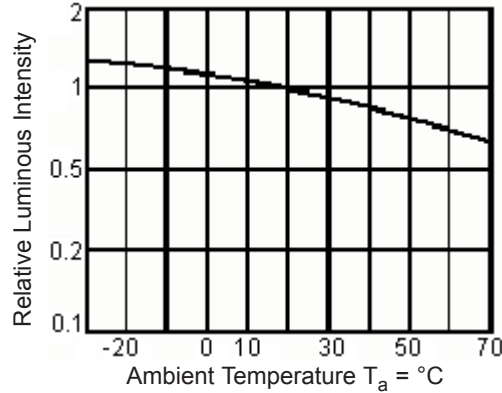
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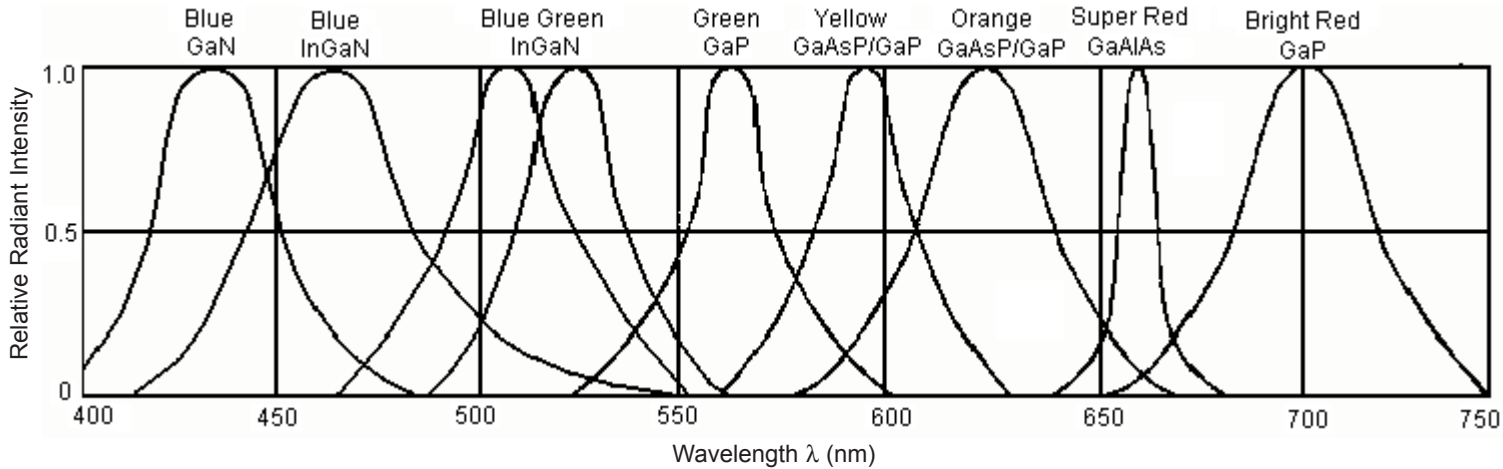
Amber (GaAsP/CaP  $\lambda_P = 610\text{nm}$ )



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 - Amber

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001196	L453BD_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 3 OF 4	



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Part Number Table

Description	Part Number
LED, 2mmX5mm, 120°, Amber	MCL453BD

<http://www.farnell.com>

<http://www.newark.com>

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

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SIZE  
A

DWG NO.

M10001196

ELECTRONIC FILE  
L453BD\_DWG

REV  
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4