

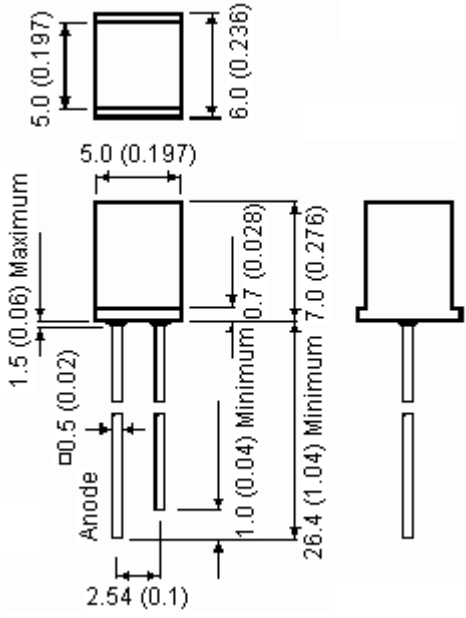


PART NO.

MCL293PD

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 : GaP.
- Emitted color : Hi-red.
- Lens color : Red diffused.
- Peak wavelength : 697nm.
- Viewing angle : 150 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	-	150	-	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	-

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

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 x 5.0mm x 7.0mm Square LED Lamp - HI Red			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001195	L293PD_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 1 OF 4



PART NO.

MCL293PD

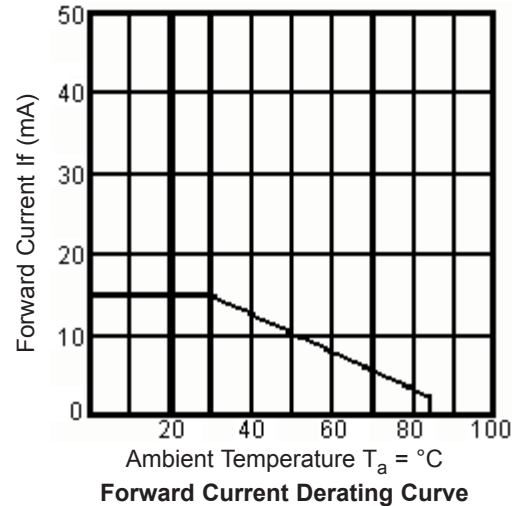
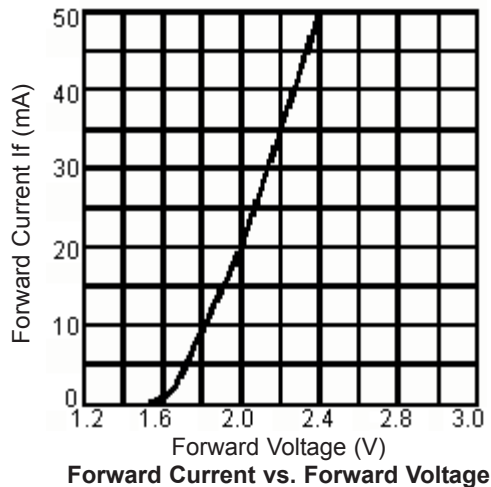
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Geetha	29/5/08	Suresh	29/5/08	G. C	13/6/08

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)



This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

**TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.**

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 x 5.0mm x 7.0mm Square LED Lamp - HI Red

SIZE A	DWG NO. M10001195	ELECTRONIC FILE L293PD_DWG	REV A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 4



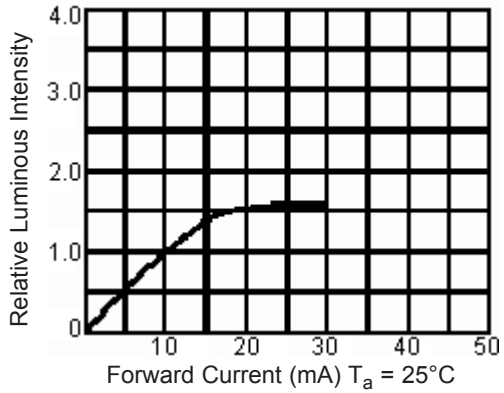
PART NO.

MCL293PD

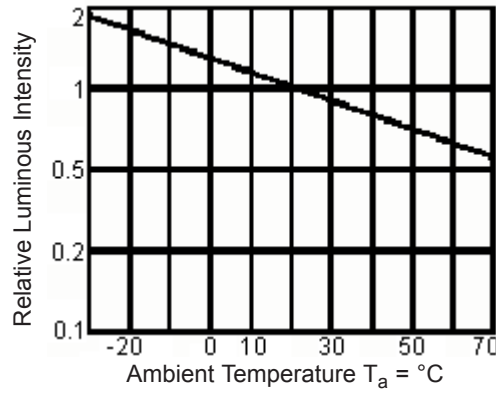
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Geetha	29/5/08	Suresh	29/5/08	G. C	13/6/08

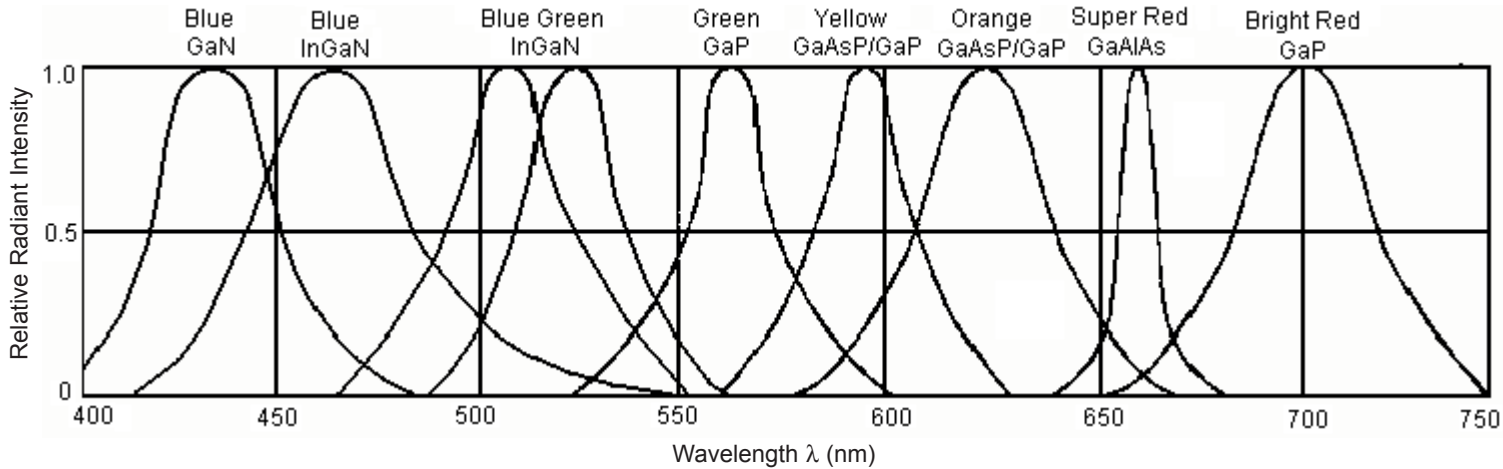
Bright Red (GaP $\lambda_P = 697\text{nm}$)



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature



Relative Intensity vs. Wavelength

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

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 x 5.0mm x 7.0mm Square LED Lamp - HI Red

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10001195	L293PD_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 3 OF 4	



PART NO.

MCL293PD

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, 5mmX5mm, 150°, HI-Red	MCL293PD

<http://www.farnell.com>

<http://www.newark.com>

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

This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC MULTICOMP is the registered trademark of the Group. © Premier Farnell plc 2008.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:

Geetha

CHECKED BY:

Suresh

APPROVED BY:

G.Cook

DATE:

29/05/08

DATE:

29/05/08

DATE:

13/06/08

DRAWING TITLE:

5.0mm x 5.0mm x 7.0mm Square LED Lamp - HI Red

SIZE
A

DWG NO.

M10001195

ELECTRONIC FILE
L293PD_DWG

REV
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4