



PART NO.

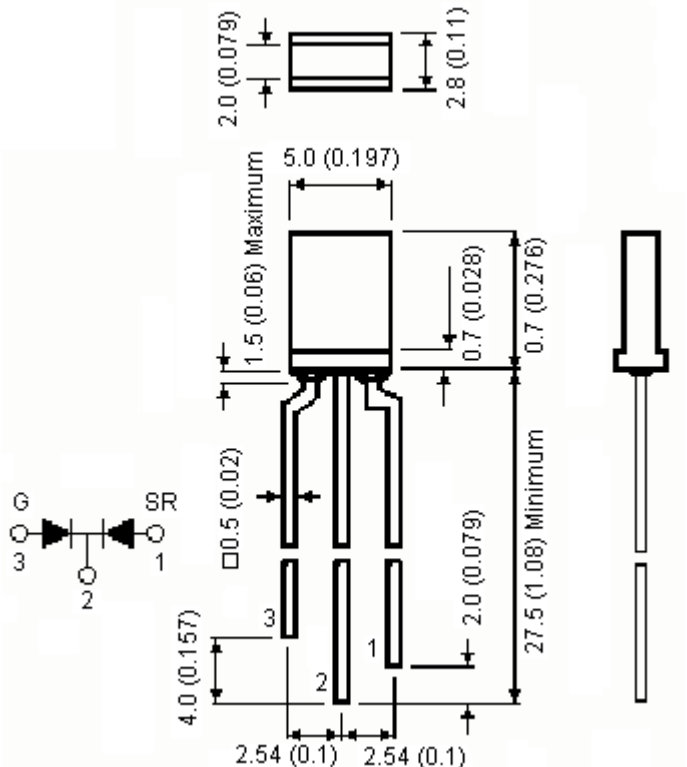
MCL239PURGW

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ramya	14/10/09	Sridhar	14/10/09	Farnell	28/10/09

Specifications:

Dice material : GaAlAs/GaP.
 Emitted colour : Super red/green.
 Lens colour : White diffused.
 Peak wavelength : 660/568nm.
 Viewing angle : 120 degrees.
 Luminous intensity (IV) : 12/3.1mcd.



Dimensions : Millimetres (Inches)

Electrical/Optical Characteristics at T_a = 25°C

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Test
Luminous Intensity	IV	6.0/1.4	12/3.1	18/4.9	mcd	IF = 20mA
Viewing Angle	2θ 1/2	-	120	-	degrees	
Peak Emission Wavelength	• λ _p	-	660/568	-	nm	-
Dominant Wavelength	• λ _d	-	643/570	-		-
Spectral Line Half-Width	Δλ	-	20/30	-		-
Forward Voltage	VF	1.5/1.7	1.8/2.1	2.5/2.6	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	-

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 2009.

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

DRAWN BY:	DATE:
Ramya	14/10/09
CHECKED BY:	DATE:
Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:			
2.0mm x 5.0mm x 7.0mm Multi-colour LED Lamp - HI Red/Green			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002397	52944_1581201 (2)_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 1 OF 5



PART NO.

MCL239PURGW

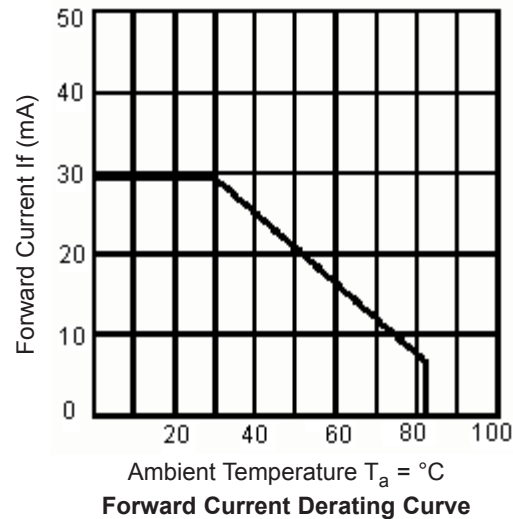
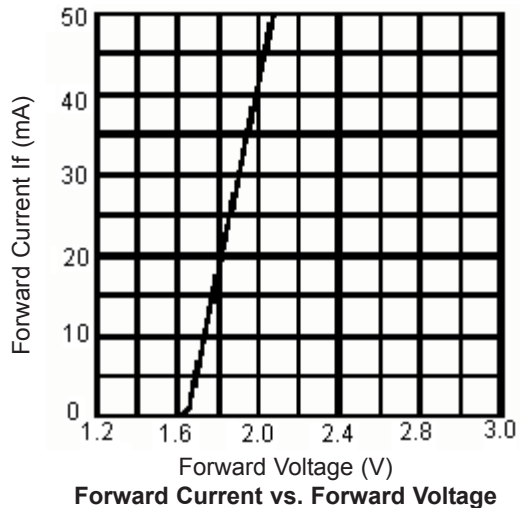
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ramya	14/10/09	Sridhar	14/10/09	Farnell	28/10/09

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

Super Red (GaAlAs) λP = 660nm



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:
Ramya	14/10/09
CHECKED BY:	DATE:
Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:			
2.0mm x 5.0mm x 7.0mm Multi-colour LED Lamp - HI Red/Green			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002397	52944_1581201 (2)_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 2 OF 5



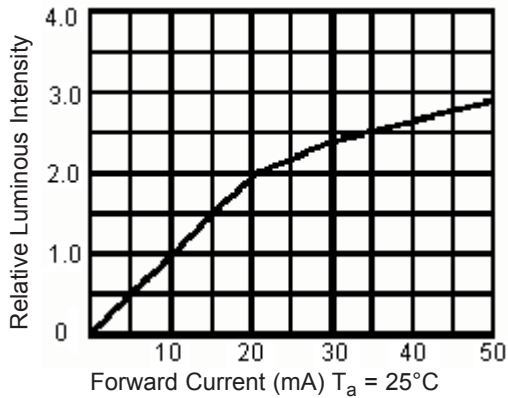
PART NO.

MCL239PURGW

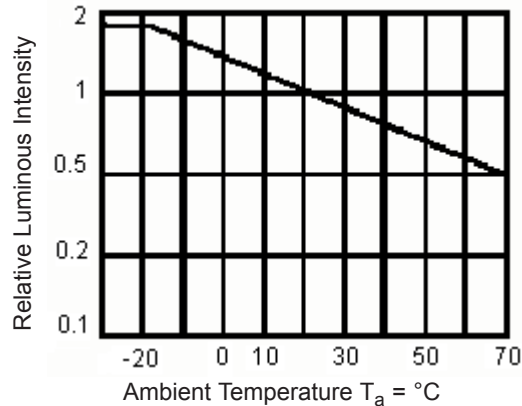
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ramya	14/10/09	Sridhar	14/10/09	Farnell	28/10/09

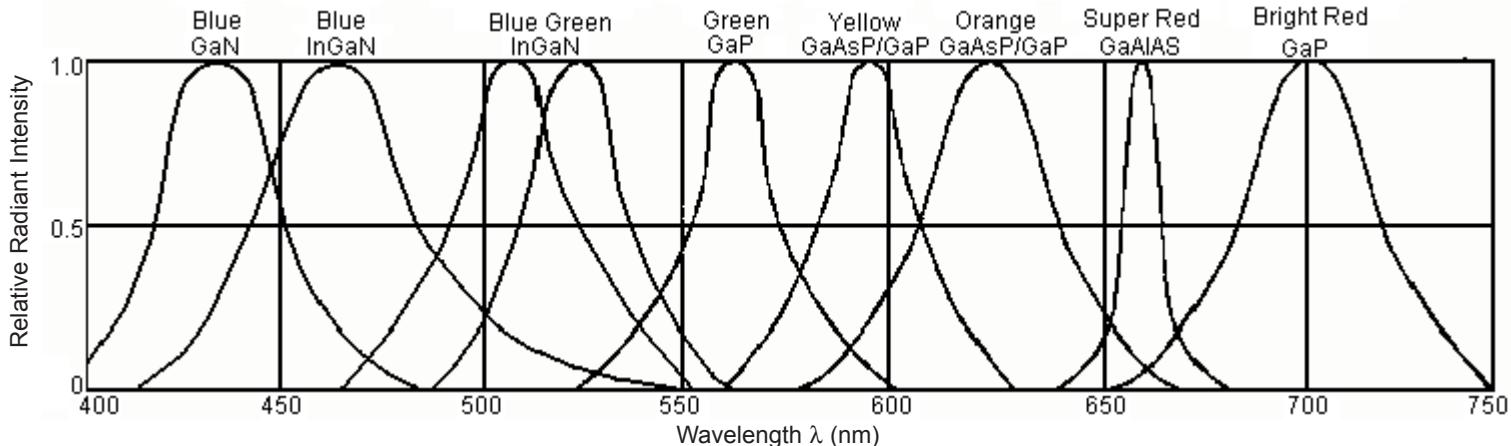
Super Red (GaAlAs) $\lambda_P = 660\text{nm}$



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:
Ramya	14/10/09
CHECKED BY:	DATE:
Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:

2.0mm x 5.0mm x 7.0mm Multi-colour LED Lamp - HI Red/Green

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002397	52944_1581201 (2)_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 3 OF 5	



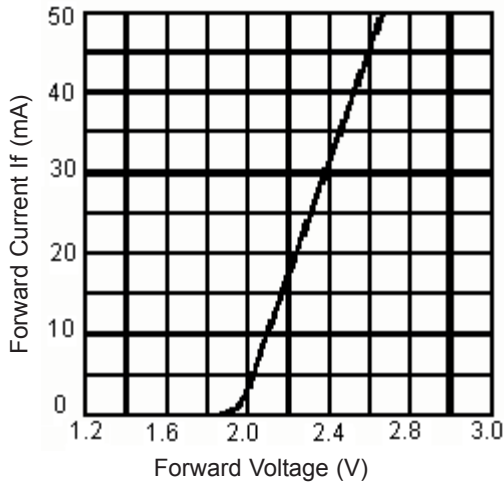
PART NO.

MCL239PURGW

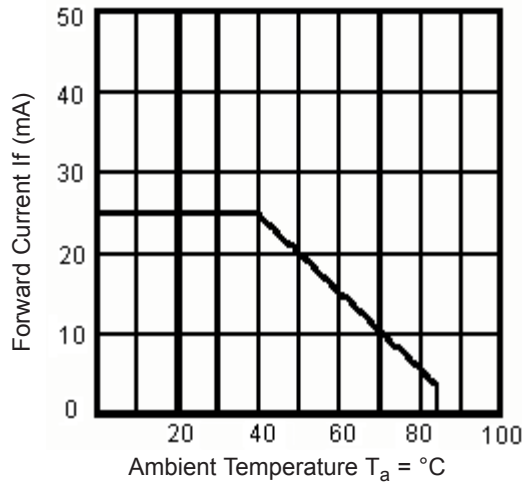
REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ramya	14/10/09	Sridhar	14/10/09	Farnell	28/10/09

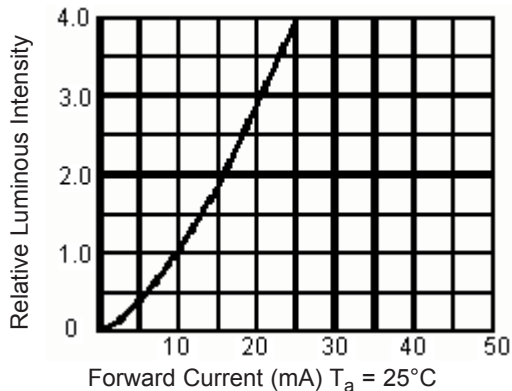
Green (GaP $\lambda_P = 568\text{nm}$)



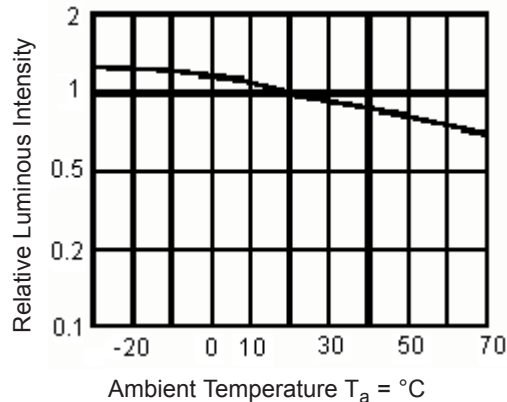
Forward Current vs. Forward Voltage



Forward Current Derating Curve



Luminous Intensity vs. Forward Current



Luminous Intensity vs. Ambient Temperature

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:
Ramya	14/10/09
CHECKED BY:	DATE:
Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:

2.0mm x 5.0mm x 7.0mm Multi-colour LED Lamp - HI Red/Green

SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002397	52944_1581201 (2)_DWG	A
SCALE: NTS	U.O.M.: mm (Inches)	SHEET: 4 OF 5	

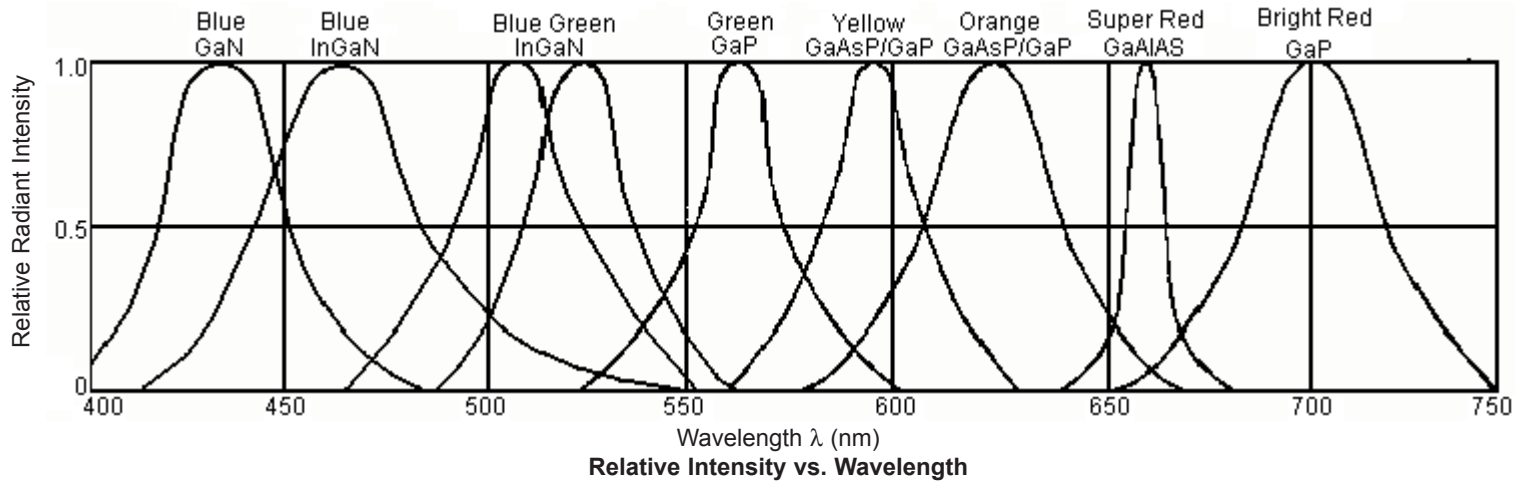


PART NO.

MCL239PURGW

REVISIONS

ECN #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
-	A	RELEASED	Ramya	14/10/09	Sridhar	14/10/09	Farnell	28/10/09



Part Number Table

Description	Part Number
LED, 2mm x 5mm, Hi-Red/Green	MCL239PURGW

<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:	DATE:
Ramya	14/10/09
CHECKED BY:	DATE:
Sridhar	14/10/09
APPROVED BY:	DATE:
Farnell	28/10/09

DRAWING TITLE:			
2.0mm x 5.0mm x 7.0mm Multi-colour LED Lamp - HI Red/Green			
SIZE	DWG NO.	ELECTRONIC FILE	REV
A	M10002397	52944_1581201 (2)_DWG	A
SCALE: NTS		U.O.M.: mm (Inches)	SHEET: 5 OF 5