



PART NO.

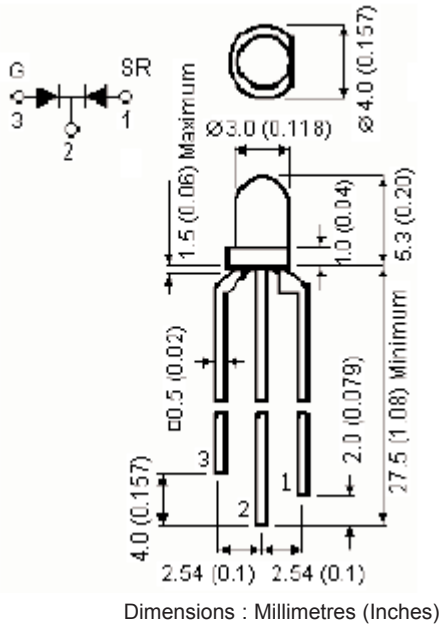
MCL039PURGW

## REVISIONS

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

## Specifications:

Dice material : AlGaAs/GaP.  
Emitted colour : Super red/green.  
Lens colour : White diffused.  
Peak wavelength : 660/568nm.  
Viewing angle : 76 degrees.  
Luminous intensity (IV) : 30/10mcd.

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

| Parameter                                    | Symbol           | Minimum | Typical | Maximum | Unit    | Test      |
|----------------------------------------------|------------------|---------|---------|---------|---------|-----------|
| Luminous Intensity                           | IV               | 18/6    | 30/10   | 50/18   | mcd     | IF = 20mA |
| Viewing Angle                                | 2θ 1/2           | -       | 76      | -       | degrees |           |
| Peak Emission Wavelength                     | • λ <sub>p</sub> | -       | 660/568 | -       | nm      | -         |
| Dominant Wavelength                          | • λ <sub>d</sub> | -       | 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<br>(Duty 1/10 at 1KHz ) | IF (Peak)        | -       | -       | 100     | -       | -         |
| Recommended Operating<br>Current             | IF (Rec)         | -       | 20      | -       | mA      | -         |

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## DRAWN BY:

Jagan

## DATE:

14/10/09

## CHECKED BY:

Sridhar

## DATE:

14/10/09

## APPROVED BY:

Farnell

## DATE:

28/10/09

## DRAWING TITLE:

3.0mm Multi-colour LED Lamp - HI Red/Green

SIZE  
A

DWG NO.

M10002403

ELECTRONIC FILE

52930\_1581194\_DWG

REV

A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 1 OF 5



PART NO.

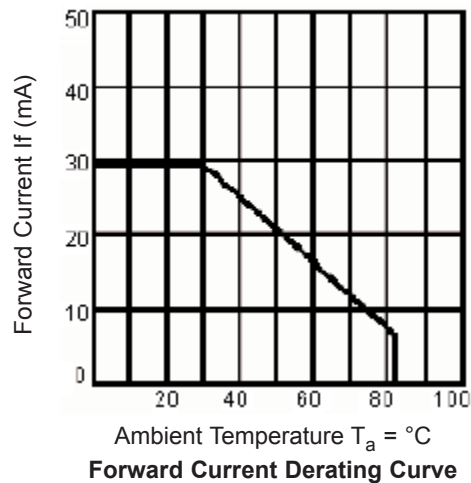
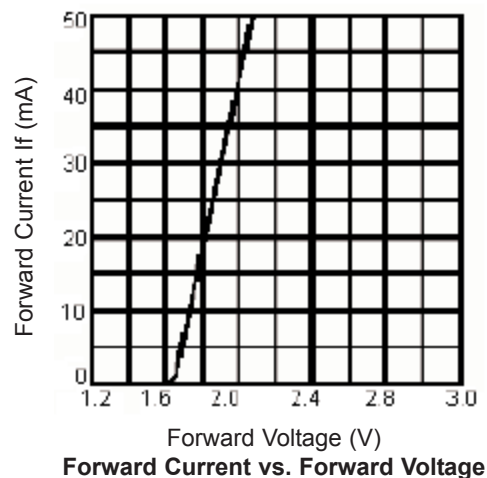
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Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

|                                                                 |                                            |
|-----------------------------------------------------------------|--------------------------------------------|
| Reverse Voltage                                                 | 5 Volt                                     |
| Reverse Current                                                 | $10\mu\text{A}$ ( $V_R = 5\text{V}$ )      |
| Operating Temperature Range                                     | $-40^\circ\text{C}$ to $85^\circ\text{C}$  |
| Storage Temperature Range                                       | $-40^\circ\text{C}$ to $100^\circ\text{C}$ |
| Lead Soldering Temperature Range<br>1.6mm (1/16 inch) from body | $260^\circ\text{C}$ for 5 Seconds          |

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

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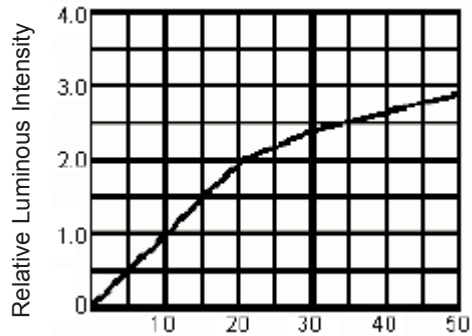


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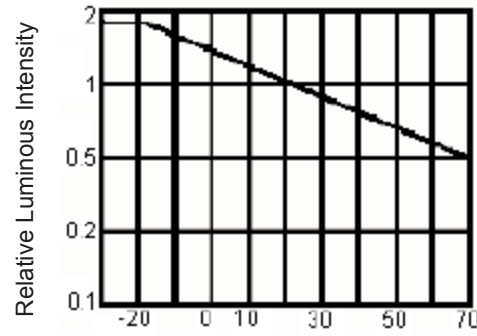
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## REVISIONS

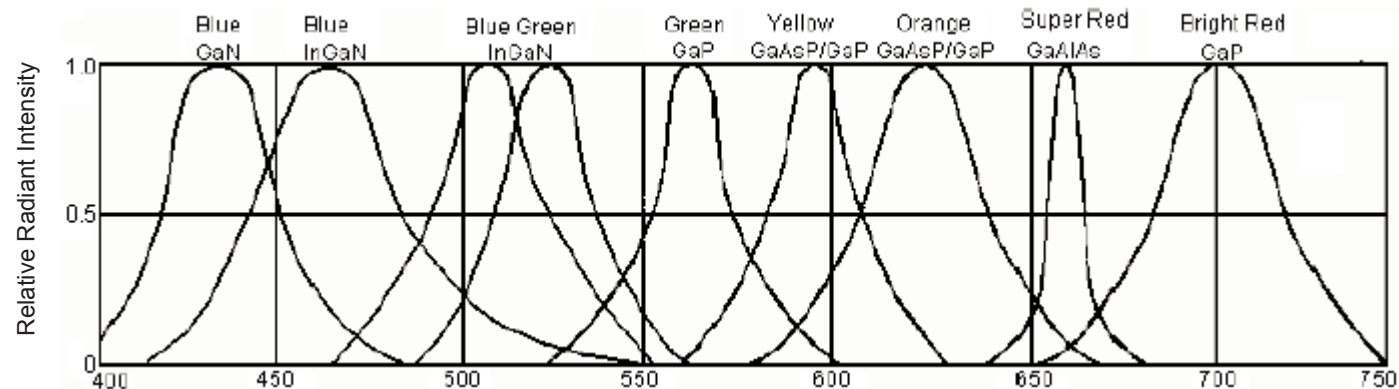
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Super Red (GaAlAs)  $\lambda_P = 660\text{nm}$ Forward Current (mA)  $T_a = 25^\circ\text{C}$ 

Luminous Intensity vs. Forward Current

Ambient Temperature  $T_a = ^\circ\text{C}$ 

Luminous Intensity vs. Ambient Temperature

Wavelength  $\lambda$  (nm)

Relative Intensity vs. Wavelength

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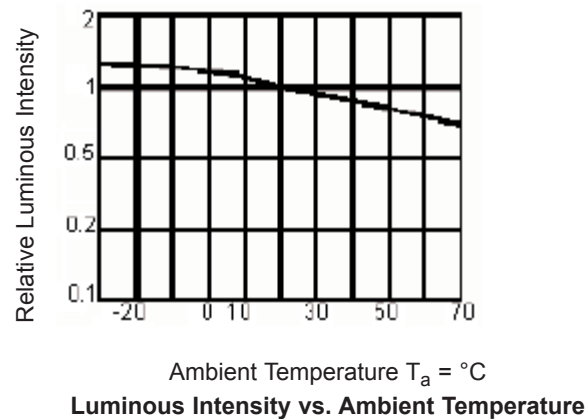
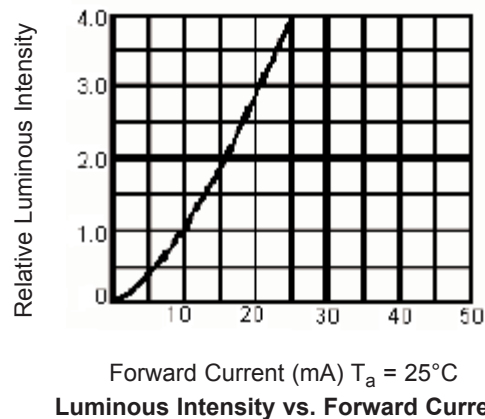
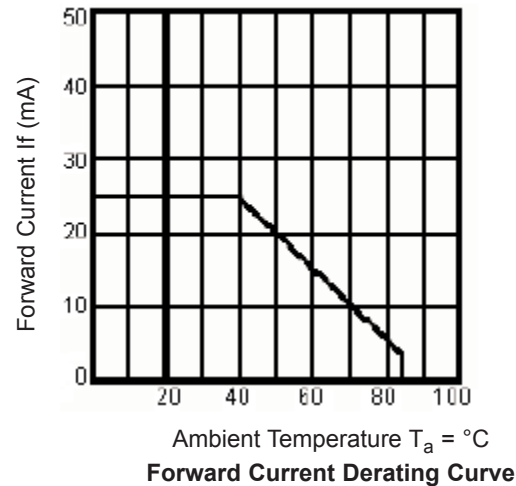
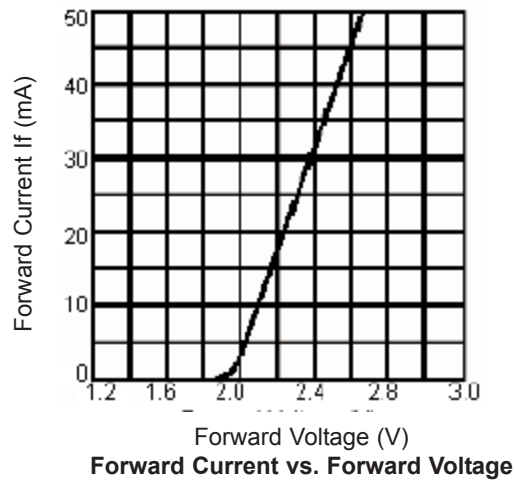


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Green (GaP  $\lambda_P = 568\text{nm}$ )

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Farnell

## DATE:

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3.0mm Multi-colour LED Lamp - HI Red/Green

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SCALE: NTS

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SHEET: 4 OF 5

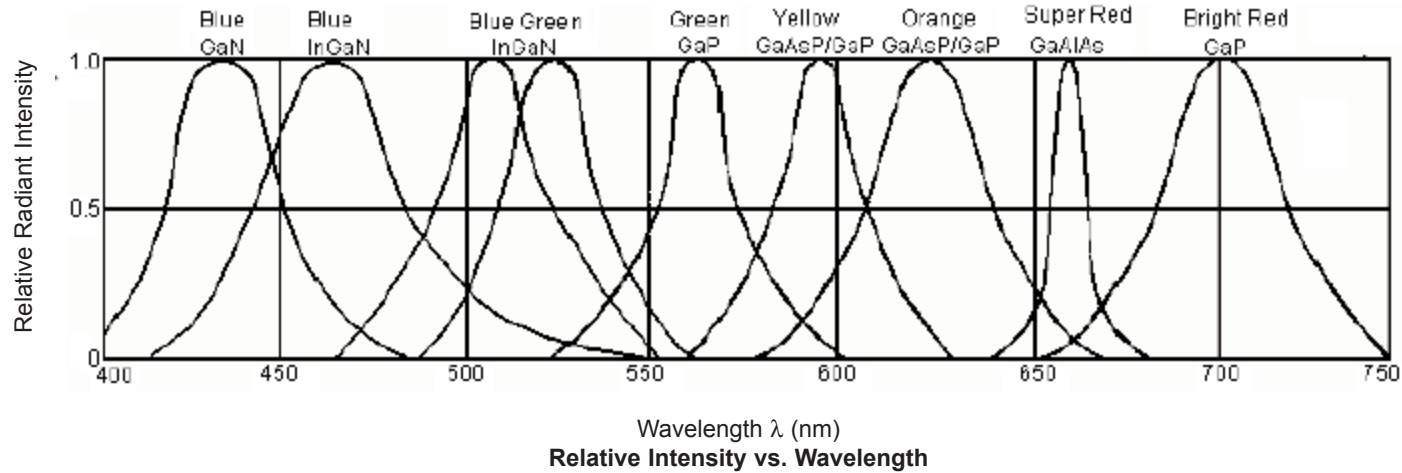


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Green (GaP  $\lambda_P = 568\text{nm}$ )

## Part Number Table

| Description            | Part Number |
|------------------------|-------------|
| LED, 3mm, HI-Red/Green | MCL039PURGW |

<http://www.farnell.com><http://www.newark.com><http://www.cpc.co.uk>

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