

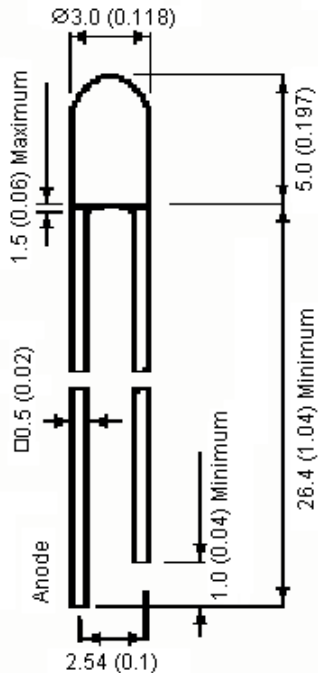
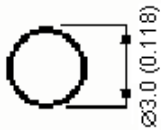


PART NO.

MCL514PD

REVISIONS

| ECN # | REV | DESCRIPTION | DRAWN | DATE    | CHECKD | DATE    | APPRVD | DATE    |
|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| -     | A   | RELEASED    | Veena | 27/6/08 | Suresh | 27/6/08 | G. C   | 14/7/08 |



Dimensions : Millimetres (Inches)

Specifications:

Dice material : GaP.  
 Emitted color : HI-red.  
 Lens color : Red diffused.  
 Peak wavelength : 697nm.  
 Viewing angle : 76 degrees.  
 Luminous intensity (IV) : 1.6mcd.



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

| Parameter                                | Symbol           | Minimum | Typical | Maximum | Unit    | Test      |
|--|------------------|---------|---------|---------|---------|-----------|
| Luminous Intensity                       | IV               | 0.8     | 1.6     | 2.5     | mcd     | IF = 10mA |
| Viewing Angle                            | 2θ 1/2           | -       | 70      | -       | degrees |           |
| Peak Emission Wavelength                 | • λ <sub>p</sub> | -       | 697     | -       | nm      | -         |
| Dominant Wavelength                      | • λ <sub>D</sub> | -       | 650     | -       |         | -         |
| Spectral Line Half-Width                 | Δλ               | -       | 90      | -       |         | -         |
| Forward Voltage                          | V <sub>F</sub>   | 1.7     | 2.1     | 2.6     | V       | IF = 10mA |
| Power Dissipation                        | P <sub>d</sub>   | -       | -       | 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.

|                     |              |
|---------------------|--------------|
| <b>DRAWN BY:</b>    | <b>DATE:</b> |
| Veena               | 27/06/08     |
| <b>CHECKED BY:</b>  | <b>DATE:</b> |
| Suresh              | 27/06/08     |
| <b>APPROVED BY:</b> | <b>DATE:</b> |
| G.Cook              | 14/07/08     |

|                               |                |                            |                      |
|-------------------------------|----------------|----------------------------|----------------------|
| <b>DRAWING TITLE:</b>         |                |                            |                      |
| 3.0mm Round LED Lamp - HI Red |                |                            |                      |
| <b>SIZE</b>                   | <b>DWG NO.</b> | <b>ELECTRONIC FILE</b>     | <b>REV</b>           |
| A                             | M10001257      | L514PD_DWG                 | A                    |
| <b>SCALE: NTS</b>             |                | <b>U.O.M.: mm (Inches)</b> | <b>SHEET: 1 OF 4</b> |



PART NO.

MCL514PD

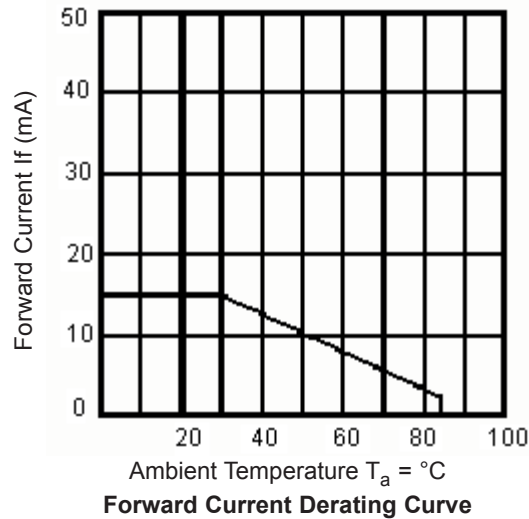
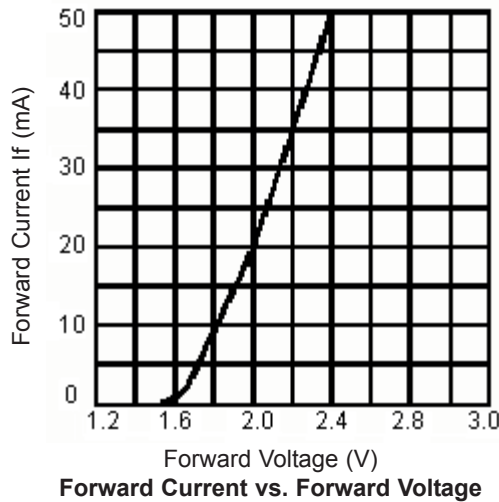
REVISIONS

| ECN # | REV | DESCRIPTION | DRAWN | DATE    | CHECKD | DATE    | APPRVD | DATE    |
|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| -     | A   | RELEASED    | Veena | 27/6/08 | Suresh | 27/6/08 | G. C   | 14/7/08 |

**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<br>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.**

|                     |              |
|---------------------|--------------|
| <b>DRAWN BY:</b>    | <b>DATE:</b> |
| Veena               | 27/06/08     |
| <b>CHECKED BY:</b>  | <b>DATE:</b> |
| Suresh              | 27/06/08     |
| <b>APPROVED BY:</b> | <b>DATE:</b> |
| G.Cook              | 14/07/08     |

|                               |                |                            |                      |
|-------------------------------|----------------|----------------------------|----------------------|
| <b>DRAWING TITLE:</b>         |                |                            |                      |
| 3.0mm Round LED Lamp - HI Red |                |                            |                      |
| <b>SIZE</b>                   | <b>DWG NO.</b> | <b>ELECTRONIC FILE</b>     | <b>REV</b>           |
| A                             | M10001257      | L514PD_DWG                 | A                    |
| <b>SCALE: NTS</b>             |                | <b>U.O.M.: mm (Inches)</b> | <b>SHEET: 2 OF 4</b> |



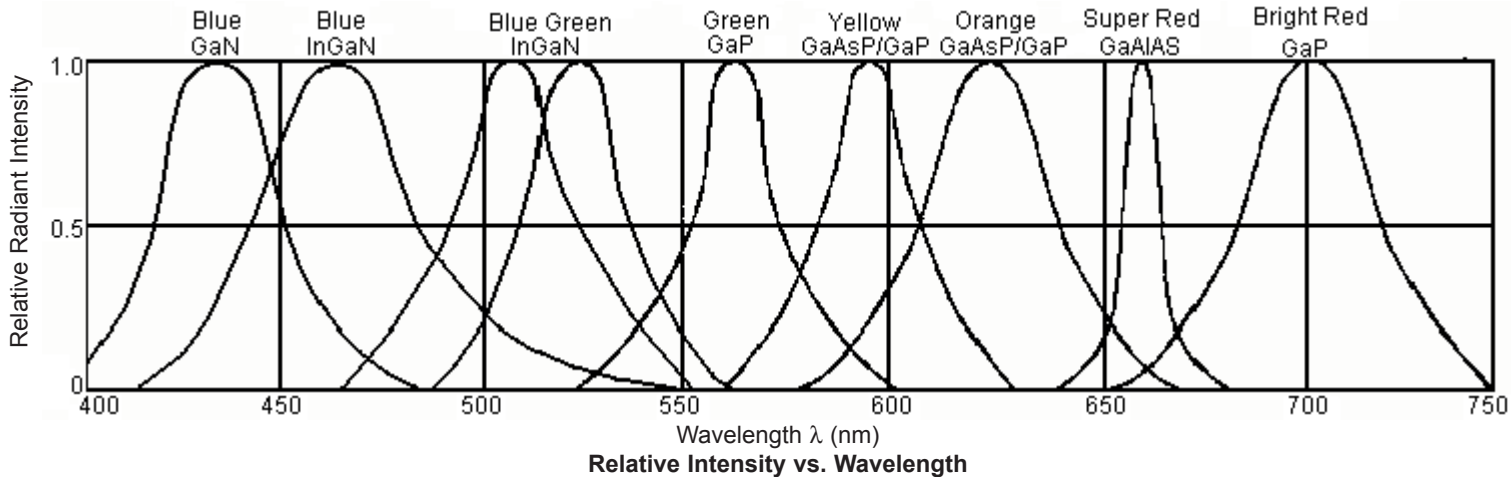
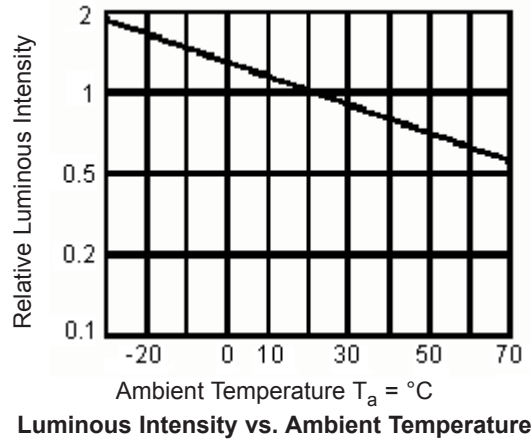
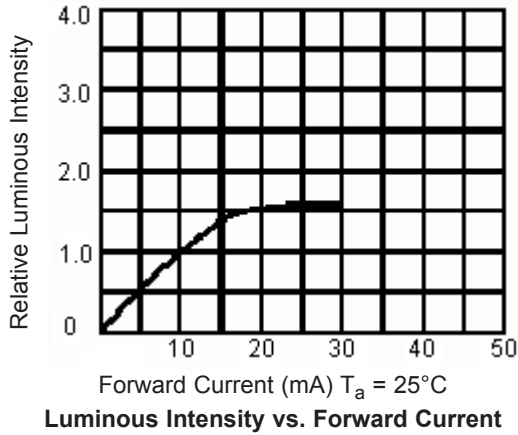
PART NO.

MCL514PD

REVISIONS

| ECN # | REV | DESCRIPTION | DRAWN | DATE    | CHECKD | DATE    | APPRVD | DATE    |
|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| -     | A   | RELEASED    | Veena | 27/6/08 | Suresh | 27/6/08 | G. C   | 14/7/08 |

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



This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No license 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:    |
| Veena        | 27/06/08 |
| CHECKED BY:  | DATE:    |
| Suresh       | 27/06/08 |
| APPROVED BY: | DATE:    |
| G.Cook       | 14/07/08 |

DRAWING TITLE:

3.0mm Round LED Lamp - HI Red

|            |                     |                 |      |
|------------|---------------------|-----------------|------|
| SIZE       | DWG NO.             | ELECTRONIC FILE | REV  |
| A          | M10001257           | L514PD_DWG      | A    |
| SCALE: NTS | U.O.M.: mm (Inches) | SHEET: 3        | OF 4 |



PART NO.

MCL514PD

REVISIONS

| ECN # | REV | DESCRIPTION | DRAWN | DATE    | CHECKD | DATE    | APPRVD | DATE    |
|-------|-----|-------------|-------|---------|--------|---------|--------|---------|
| -     | A   | RELEASED    | Veena | 27/6/08 | Suresh | 27/6/08 | G. C   | 14/7/08 |
|       |     |             |       |         |        |         |        |         |

Part Number Table

| Description           | Part Number |
|-----------------------|-------------|
| LED, 3mm, 70°, HI-Red | MCL514PD    |

<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:

Veena

CHECKED BY:

Suresh

APPROVED BY:

G.Cook

DATE:

27/06/08

DATE:

27/06/08

DATE:

14/07/08

DRAWING TITLE:

3.0mm Round LED Lamp - HI Red

SIZE  
A

DWG NO.

M10001257

ELECTRONIC FILE  
L514PD\_DWG

REV  
A

SCALE: NTS

U.O.M.: mm (Inches)

SHEET: 4 OF 4