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LED BACK LIGHT (4 Inch)

**L-00501HRF-S**

# DATA SHEET

DOC. NO : QW0905-L-00501HRF-S

REV. : A

DATE : 08 - Aug.- 2006



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PART NO. L-00501HRF-S

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## Features

Dimensions: 97.44x60x3.6(mm)

View Area: 97.44x40(mm)

Edge Backlight

## Chip Emitting Color

Red

## Applications

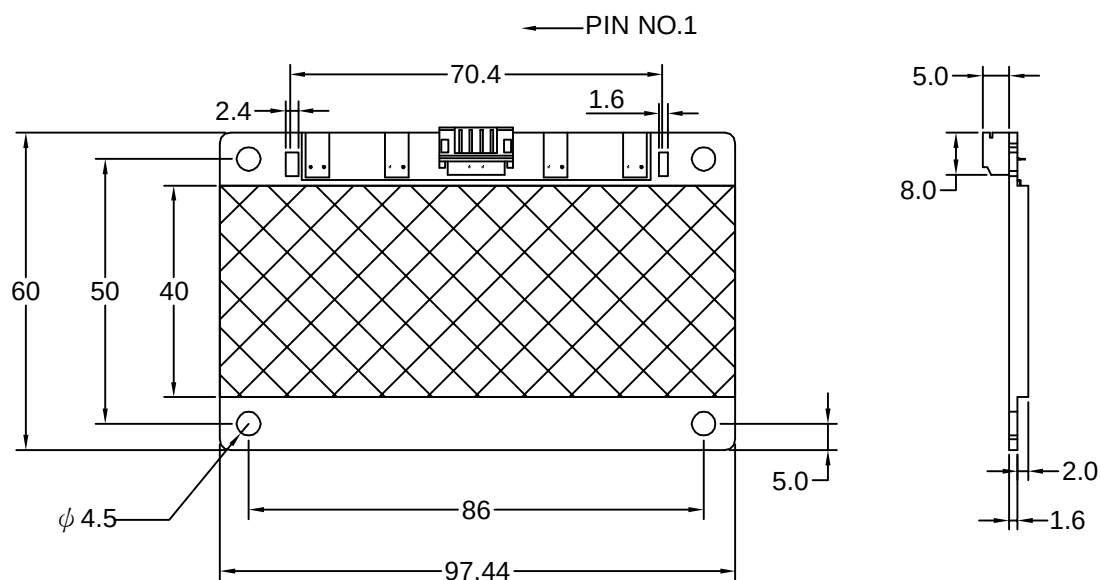
Mobile Phone

PDA

LCD Backlight

Instrumental Panel

## Package Dimensions

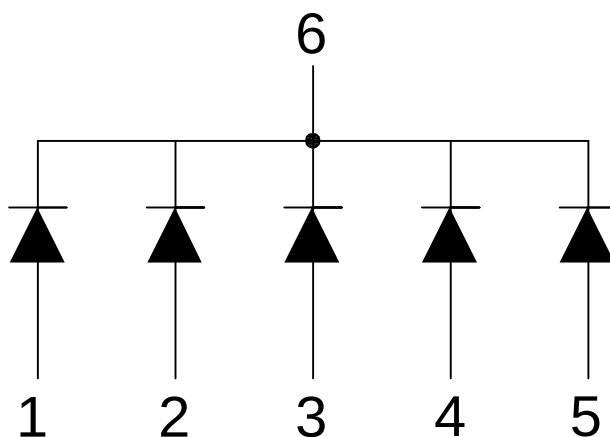


Note : 1.All dimension are in millimeters and (Inch) tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.

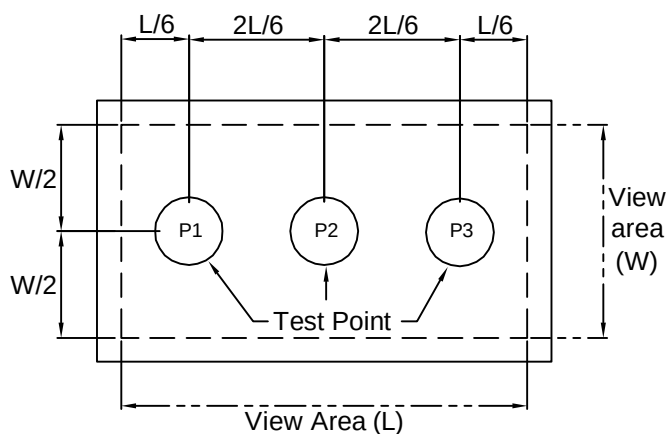
2.Specifications are subject to change without notice.



## Internal Circuit Diagram



## Measurement Method



1.Measurement Equipment : " Topcon"BM-7

2.The distance of measurement between test equipment and the objection : 50cm

$$3. \Delta EH\% = \left[ 1 - \frac{P(\text{MAX}) - P(\text{MIN})}{P(\text{MAX})} \right] \times 100\%$$



## Absolute Maximum Ratings at Ta=25 °C

| Parameter             | Symbol           | Ratings   | UNIT |
|-----------------------|------------------|-----------|------|
| Forward Current       | I <sub>F</sub>   | 90        | mA   |
| Power Dissipation     | P <sub>D</sub>   | 0.21      | W    |
| Reverse Voltage       | V <sub>R</sub>   | 5         | V    |
| Operating Temperature | T <sub>opr</sub> | -20 ~ +70 | °C   |
| Storage Temperature   | T <sub>stg</sub> | -30 ~ +80 | °C   |

## Electrical/Optical Characteristics(Ta=25°C)

Emitting Color : Red

| Parameter                | Symbol         | Min. | Typ. | Max. | Unit              | Test Conditon        |
|--------------------------|----------------|------|------|------|-------------------|----------------------|
| Luminance (Brightness)   | I <sub>V</sub> | 7.0  | 12   | -    | cd/m <sup>2</sup> | I <sub>F</sub> =50mA |
| Forward Voltage          | V <sub>F</sub> | 1.5  | -    | 2.4  | V                 | I <sub>F</sub> =50mA |
| Dominant Wavelength      | λ <sub>D</sub> | -    | 630  | -    | nm                | I <sub>F</sub> =50mA |
| Spectral Line Half Width | Δλ             | -    | 20   | -    | nm                | I <sub>F</sub> =50mA |
| Reverse current          | I <sub>R</sub> | -    | -    | 10   | μA                | V <sub>R</sub> =5V   |
| Luminous Uniformity      | ΔEH            | 70   | -    | -    | %                 | I <sub>F</sub> =50mA |

Note : 1.The forward voltage data did not including ±0.1V testing tolerance.

2. The luminance (brightness) data did not including ±15% testing tolerance.



## Typical Electro-Optical Characteristics Curve HRF CHIP

Fig.1 Forward current vs. Forward Voltage

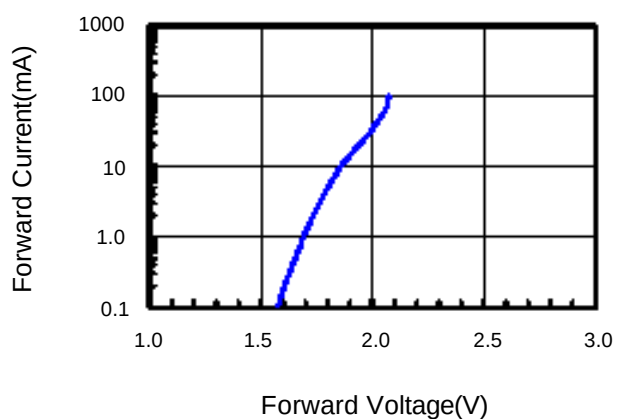


Fig.2 Relative Intensity vs. Forward Current

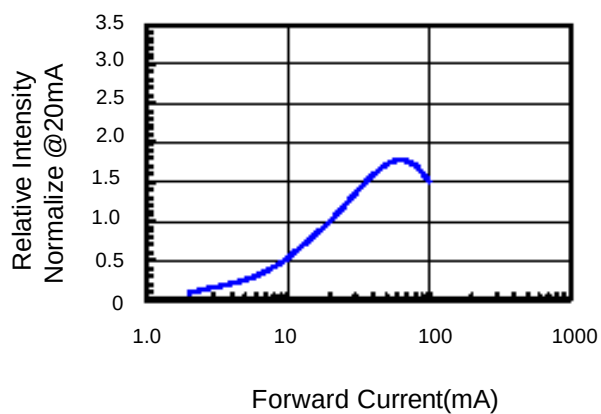


Fig.3 Relative Intensity vs. Wavelength

