

## LM1-PPG1-11

### Applications

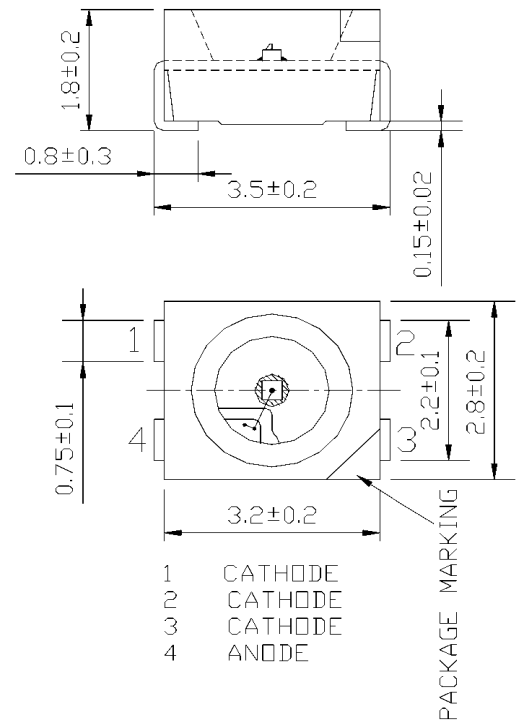
Indicators  
 Illuminations  
 LCD Back lights  
 Automobile Applications  
 RGB Full color displays

### Maximum Ratings (Ta=25°C)

| Characteristic        | Symbol           | Max.           | Unit |
|-----------------------|------------------|----------------|------|
| Forward Current       | I <sub>F</sub>   | 30             | mA   |
| Reverse Voltage       | V <sub>R</sub>   | 5              | V    |
| Power Dissipation     | P <sub>D</sub>   | 140.00         | mW   |
| Operating Temperature | T <sub>opr</sub> | -40 ~ +100     | °C   |
| Storage Temperature   | T <sub>stg</sub> | -40 ~ +100     | °C   |
| Soldering Temperature | T <sub>sol</sub> | 260            | °C   |
| Soldering Time        | -                | for 3 sec. max | -    |

### Opto-Electrical Characteristics (Ta=25°C)

| Characteristic           | Symbol            | Test Condition       | Min    | Typ    | Max  | Unit |
|--------------------------|-------------------|----------------------|--------|--------|------|------|
| Forward Voltage          | V <sub>F</sub>    | I <sub>F</sub> =30mA | -      | 3.90   | 4.60 | V    |
| Reverse Current          | I <sub>R</sub>    | V <sub>R</sub> =5V   | -      | -      | 10   | μ A  |
| Luminous Intensity       | I <sub>v</sub>    | I <sub>F</sub> =30mA | 450.00 | 700.00 | -    | mcd  |
| Viewing Angle            | 2θ <sup>1/2</sup> | -                    | -      | 120°   | -    | deg. |
| Peak Wavelength          | λ <sub>p</sub>    | I <sub>F</sub> =30mA | -      | 520    | -    | nm   |
| Dominant Wavelength      | λ <sub>d</sub>    | I <sub>F</sub> =30mA | -      | 525    | -    | nm   |
| Spectral Line Half Width | Δλ                | I <sub>F</sub> =30mA | -      | 38     | -    | nm   |



## LM1-PPG1-11 Graphs

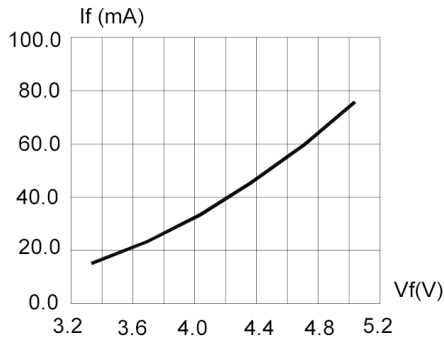


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

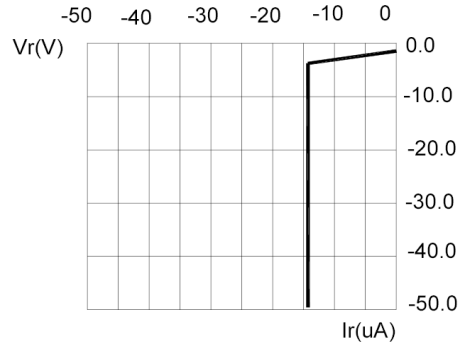


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

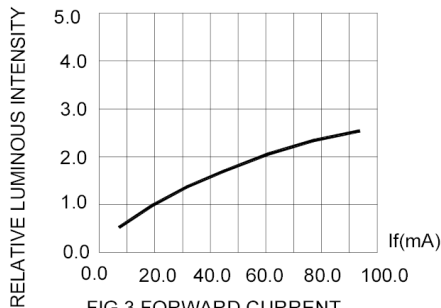


FIG.3 FORWARD CURRENT.

Half Power  $\Delta WL = 38nm$   
 Domi WL = 524nm  
 I (RELATIVE LUMINOUS INTENSITY)

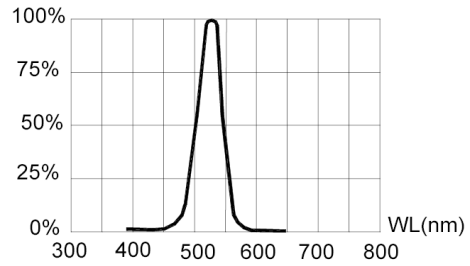


FIG.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

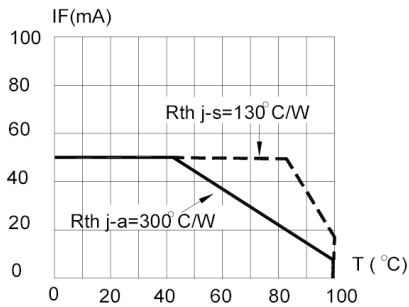


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON  $T_{jmax} = 110^{\circ}C$

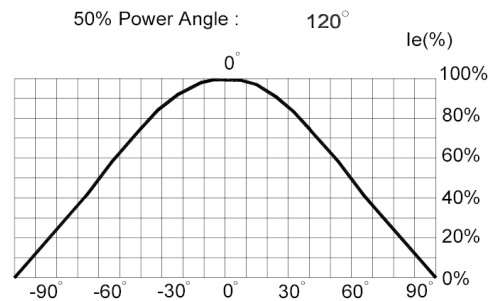


FIG.6 SPATIAL DISTRIBUTION.