

### ●Applications

- Light source for sensors  
(proximity sensors, signal transmission applications)

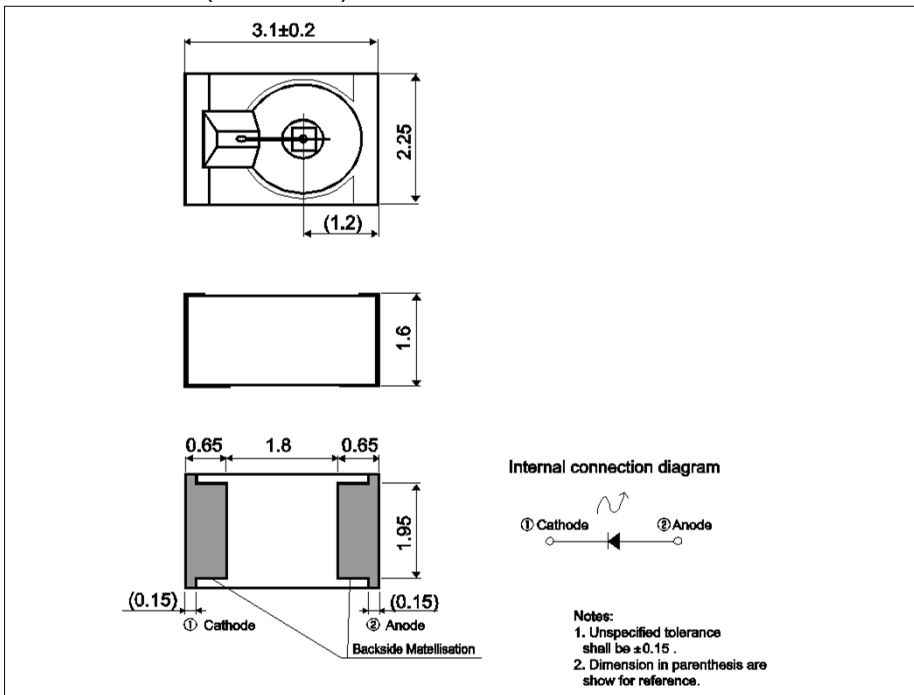
### ●Features

- 1) High compact, low-profile
- 2) High output, over a narrow angle
- 3) Excellent temperature property
- 4) Long life, high reliability
- 5) Original optical technology is ultra-high-output surface mount infrared LEDs.

### ●Outline



### ●Dimensions (Unit : mm)



### ●Absolute maximum ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter               | Symbol    | Value      | Unit             |
|-------------------------|-----------|------------|------------------|
| Forward current         | $I_F$     | 100        | mA               |
| Pulse forward current*1 | $I_{FP}$  | 1          | A                |
| Reverse voltage         | $V_R$     | 5          | V                |
| Power dissipation       | $P_D$     | 180        | mW               |
| Operating temperature   | $T_{opr}$ | -25 to +85 | $^\circ\text{C}$ |
| Storage temperature     | $T_{stg}$ | -40 to +85 | $^\circ\text{C}$ |

\*1 Pulse width 0.1msec, duty ratio 1%

**●Electrical and optical characteristics (T<sub>a</sub> = 25°C)**

| Parameter                      | Symbol           | Conditions             | Values |      |      | Unit  |
|--------------------------------|------------------|------------------------|--------|------|------|-------|
|                                |                  |                        | Min.   | Typ. | Max. |       |
| Forward voltage                | V <sub>F</sub>   | I <sub>F</sub> = 100mA | -      | 1.7  | 2.5  | V     |
| Reverse current                | I <sub>R</sub>   | V <sub>R</sub> = 5V    | -      | -    | 15   | μA    |
| Peak light emitting wavelength | λ <sub>p</sub>   | I <sub>F</sub> = 100mA | -      | 870  | -    | nm    |
| Spectral line half width       | Δλ               | I <sub>F</sub> = 100mA | -      | 35   | -    | nm    |
| View angle                     | θ <sub>1/2</sub> | -                      | -      | ±20  | -    | deg.  |
| Radiant intensity              | I <sub>E</sub>   | I <sub>F</sub> = 100mA | 20     | -    | 100  | mW/sr |

\* This product is not designed to be protected against electromagnetic wave.

\* Non-coherent infrared light emitting diode used.

●Electrical and optical characteristics curves

Fig.1 Forward Current Falloff

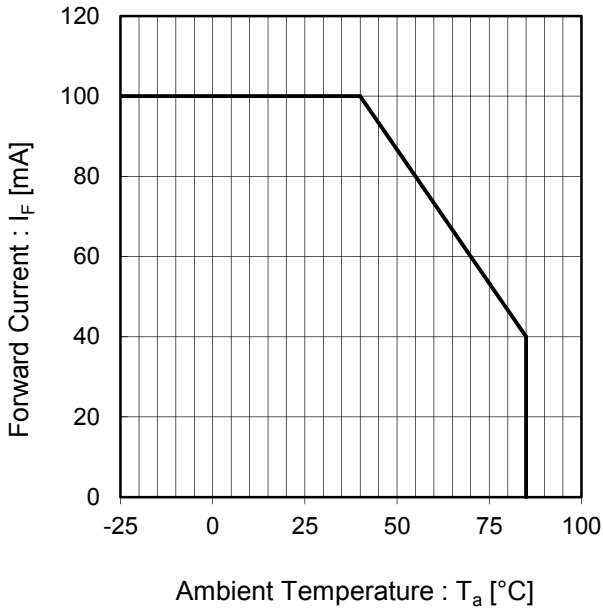


Fig.2 Forward Current vs. Forward Voltage

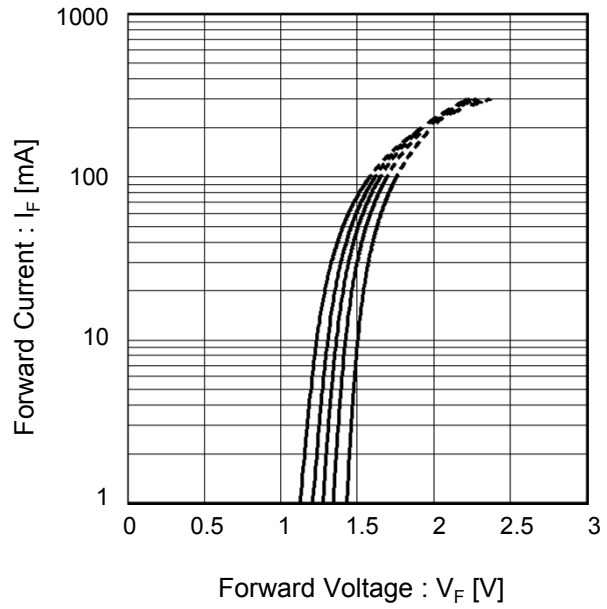


Fig.3 Radiant intensity vs. Forward current

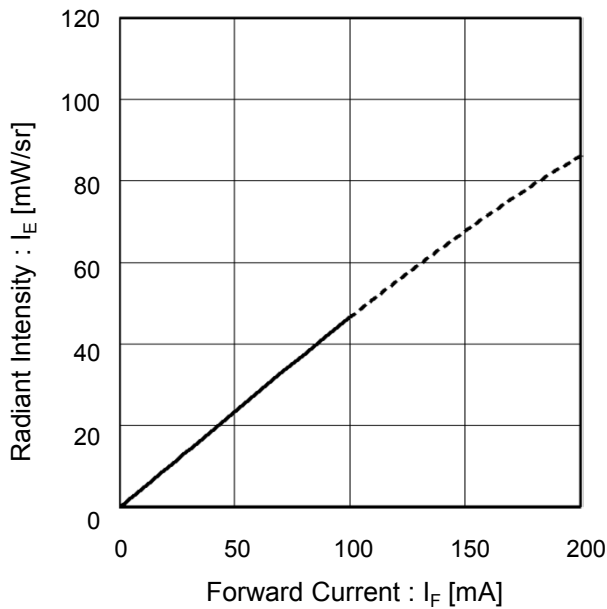
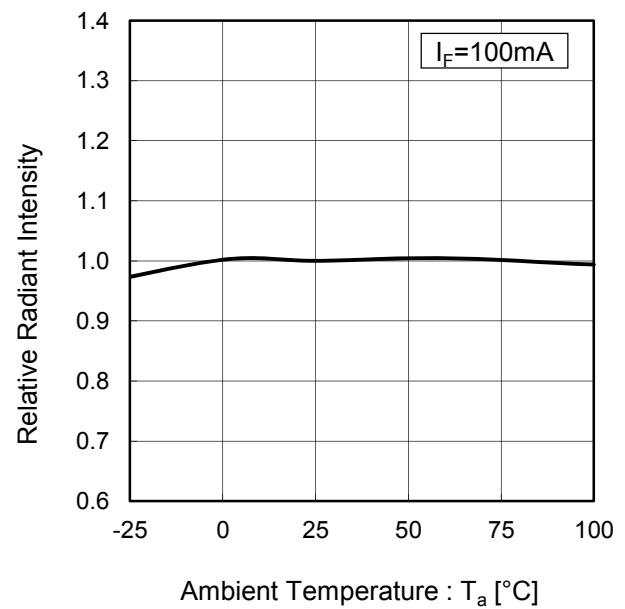


Fig.4 Relative Radiant vs. Ambient Temperature



●Electrical and optical characteristics curves

Fig.5 Spectral data

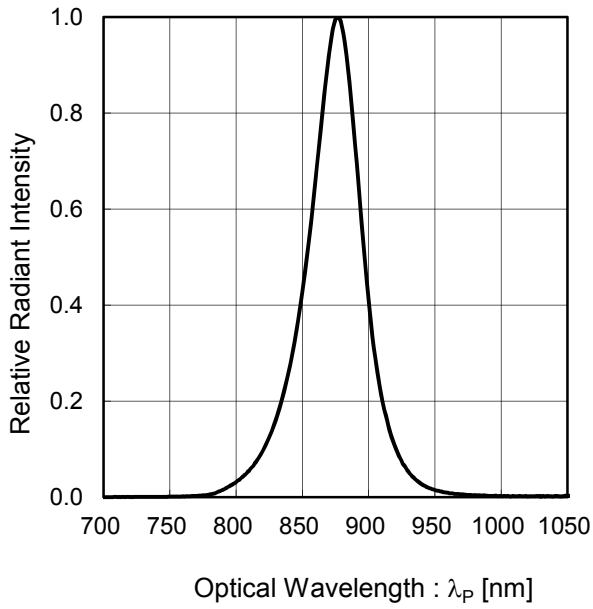


Fig.6 Radiant intensity

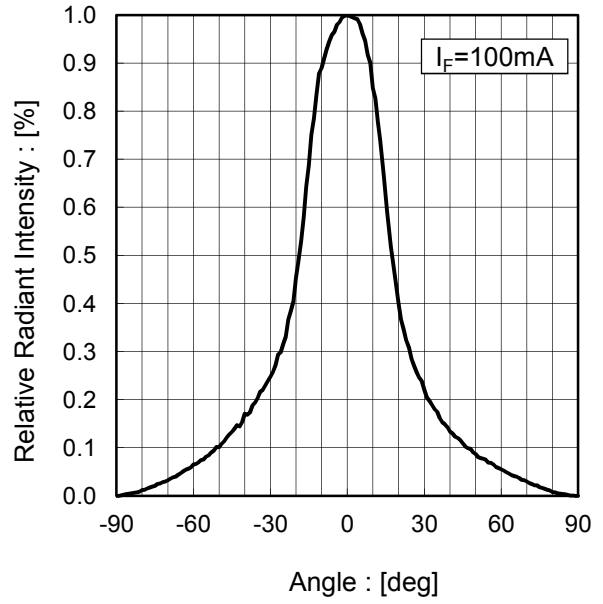
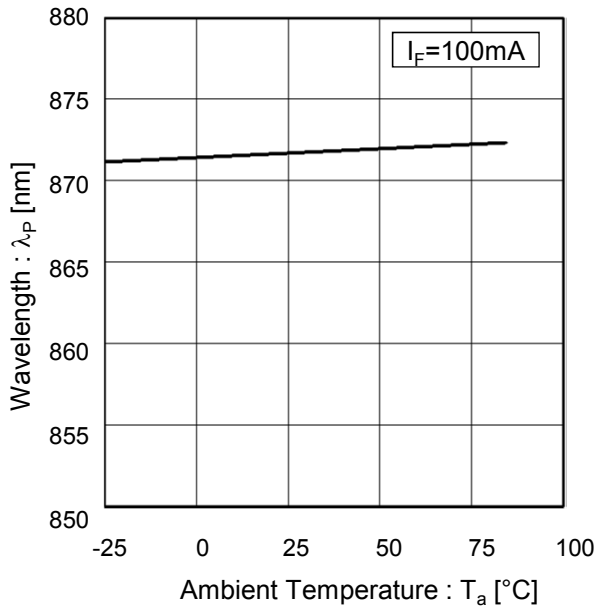


Fig.7 Wavelength vs. Ambient temperature



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