

### Features

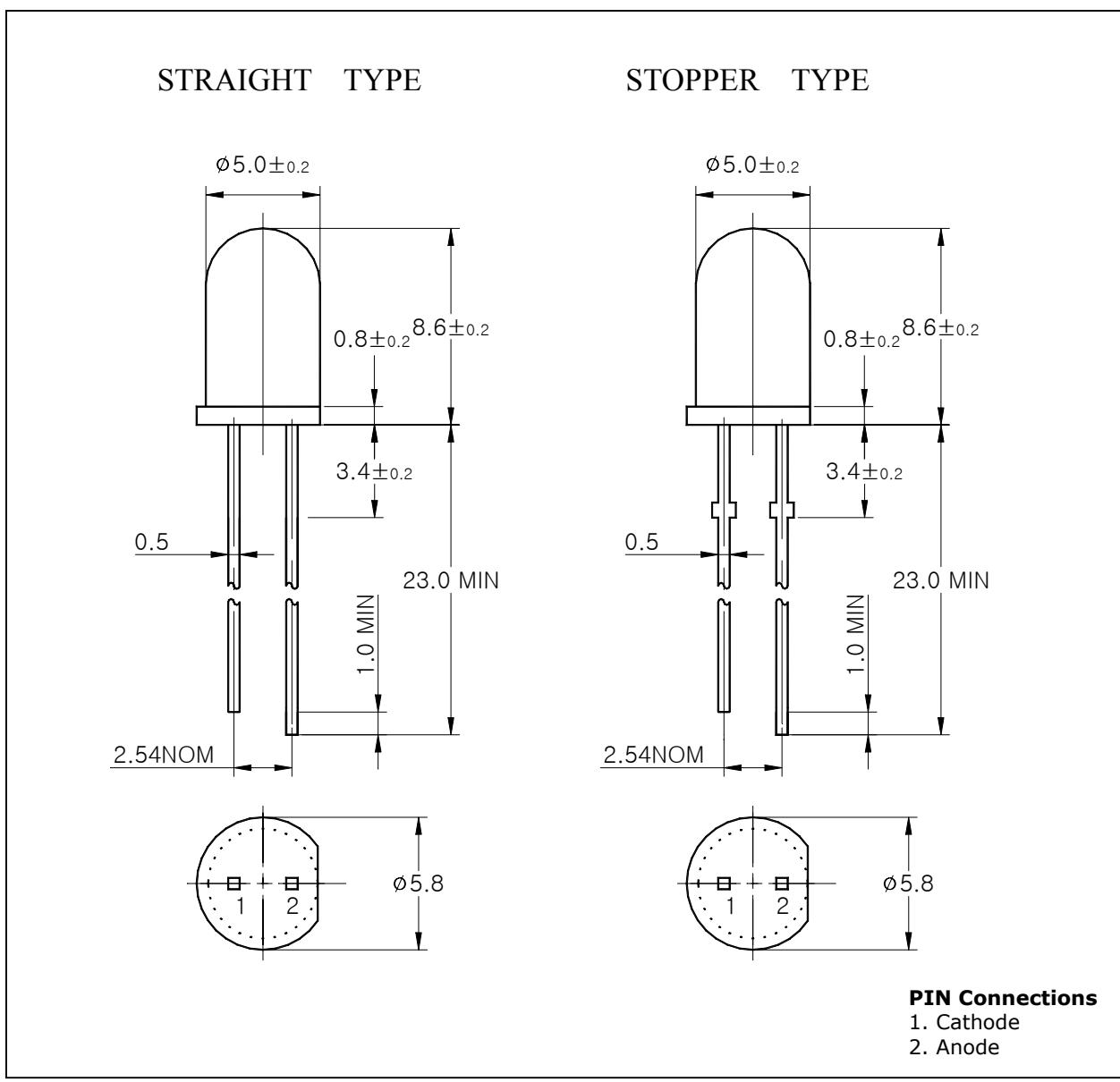
- Colorless transparency lens type
- $\phi 5\text{mm}(\text{T}-13/4)$  all plastic mold type
- Low power consumption
- High power, High speed type

### Applications

- Infrared remote control and free air transmission systems with low forward voltage and comfortable radiation angle requirements in combination with PIN photodiodes or phototransistors.

### Outline Dimensions

unit : mm



**Absolute maximum ratings**

| Characteristic                       | Symbol           | Ratings             | Unit |
|--------------------------------------|------------------|---------------------|------|
| Power Dissipation                    | P <sub>D</sub>   | 150                 | mW   |
| Forward Current                      | I <sub>F</sub>   | 100                 | mA   |
| * <sup>1</sup> Peak Forward Current  | I <sub>FP</sub>  | 1                   | A    |
| Reverse Voltage                      | V <sub>R</sub>   | 4                   | V    |
| Operating Temperature                | T <sub>opr</sub> | -25~85              | °C   |
| Storage Temperature                  | T <sub>stg</sub> | -30~100             | °C   |
| * <sup>2</sup> Soldering Temperature | T <sub>sol</sub> | 260°C for 5 seconds |      |

\*1.Duty ratio = 1/16, Pulse width = 0.1ms

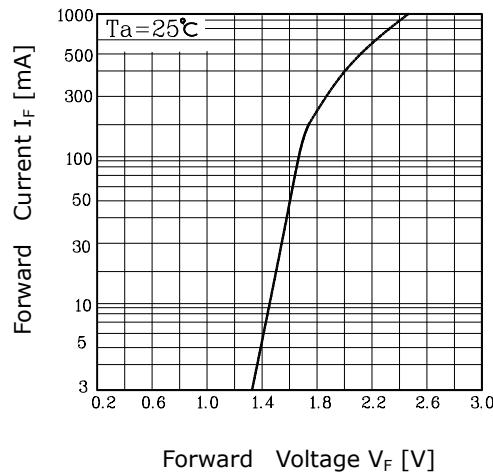
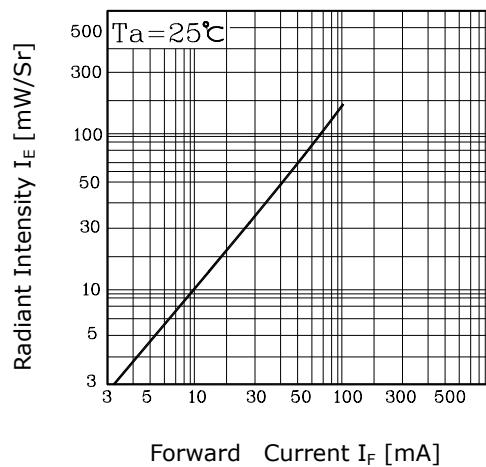
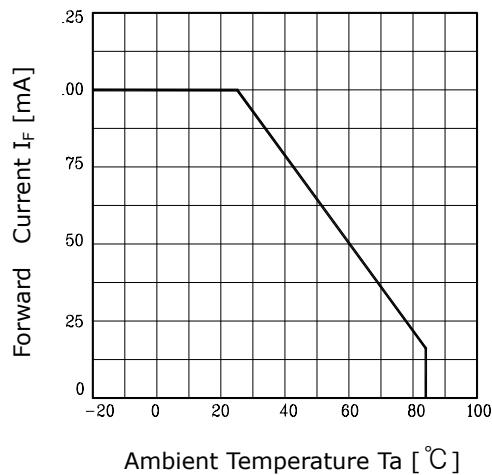
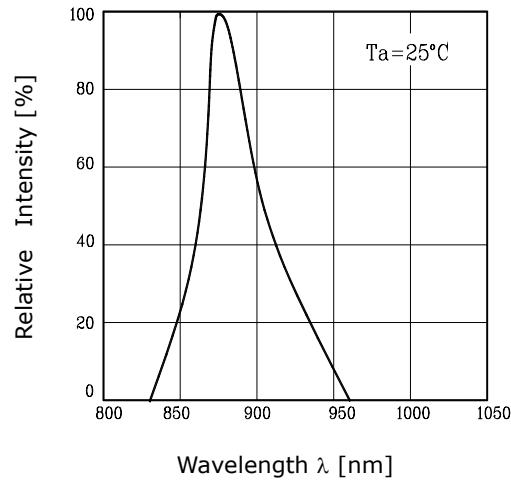
\*2.Keep the distance more than 2.0mm from PCB to the bottom of IRED package

**Electrical Characteristics**

| Characteristic            | Symbol           | Test Condition        | Min. | Typ. | Max. | Unit  |
|---------------------------|------------------|-----------------------|------|------|------|-------|
| Forward Voltage           | V <sub>F</sub>   | I <sub>F</sub> = 50mA | -    | 1.5  | 2.0  | V     |
| Radiant Intensity         | I <sub>E</sub>   | I <sub>F</sub> = 50mA | 30   | 70   | -    | mW/Sr |
| Peak Wavelength           | λ <sub>P</sub>   | I <sub>F</sub> = 50mA | -    | 875  | -    | nm    |
| Spectrum Bandwidth        | Δ λ              | I <sub>F</sub> = 50mA | -    | 45   | -    | nm    |
| Rise Time                 | t <sub>r</sub>   | I <sub>F</sub> = 50mA | -    | 15   | -    | ns    |
| Reverse Current           | I <sub>R</sub>   | V <sub>R</sub> =4V    | -    | -    | 10   | uA    |
| * <sup>3</sup> Half angle | θ <sup>1/2</sup> | I <sub>F</sub> = 50mA | -    | ±20  | -    | deg   |

\*3. θ<sup>1/2</sup> is the off-axis angle where the luminous intensity is 1/2 the peak intensity

## Characteristic Diagrams

**Fig. 1**  $I_F$  -  $V_F$ **Fig. 2**  $I_E$  -  $I_F$ **Fig. 3**  $I_F$  –  $T_a$ **Fig.4** Spectrum Distribution**Fig. 5** Radiation Diagram