

Features

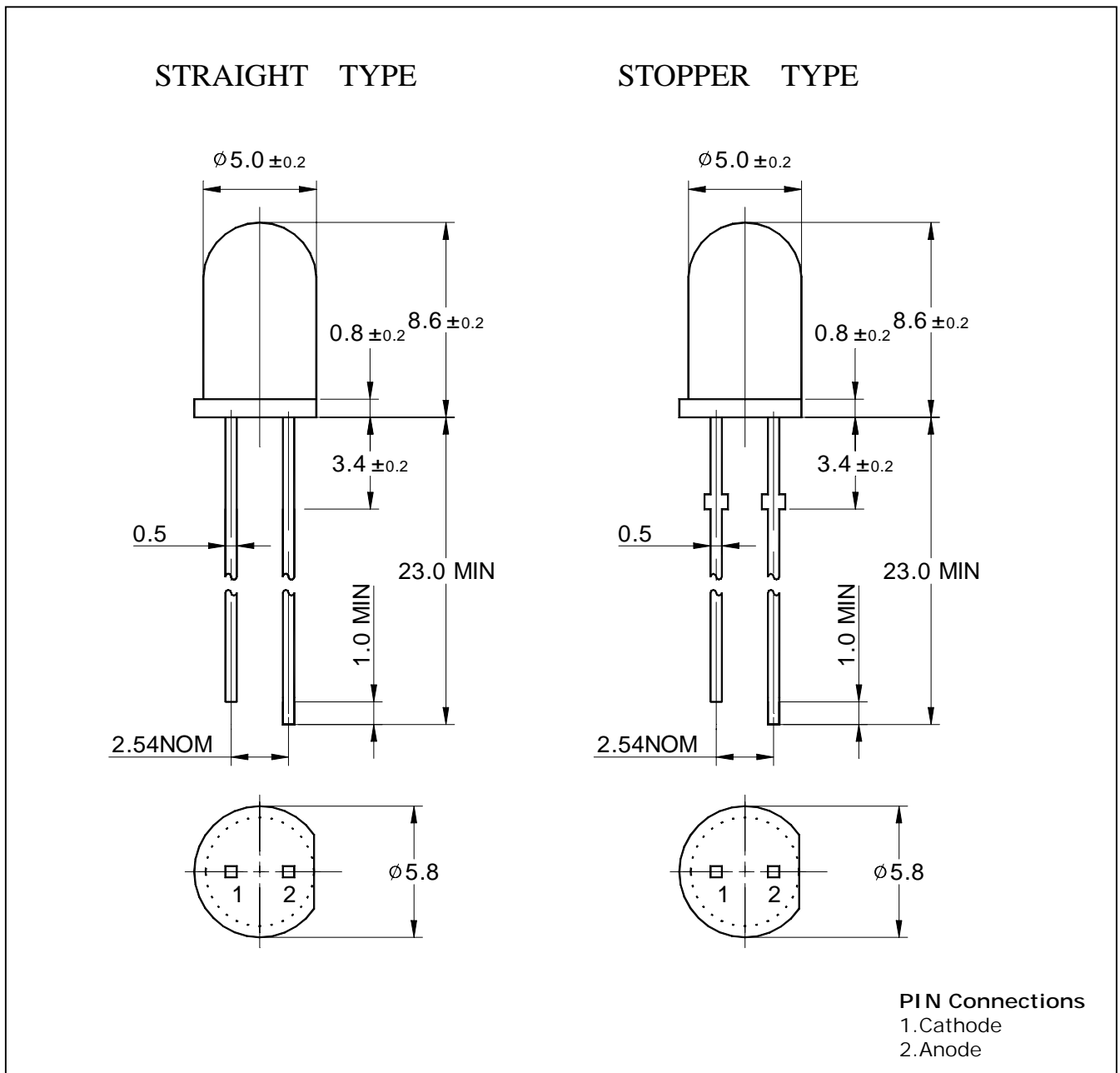
- Colorless transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Low power consumption

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_D | 150 | mW |
| Forward Current | I_F | 100 | mA |
| * ¹ Peak Forward Current | I_{FP} | 1 | A |
| Reverse Voltage | V_R | 4 | V |
| Operating Temperature | T_{opr} | -25 85 | |
| Storage Temperature | T_{stg} | -30 100 | |
| * ² Soldering Temperature | T_{sol} | 260 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_F | $I_F = 50\text{mA}$ | - | 1.4 | 1.8 | V |
| Radiant Intensity | I_E | $I_F = 50\text{mA}$ | 10 | 25 | - | mW/Sr |
| Peak Wavelength | λ_P | $I_F = 50\text{mA}$ | - | 880 | - | nm |
| Spectrum Bandwidth | | $I_F = 50\text{mA}$ | - | 50 | - | nm |
| Reverse Current | I_R | $V_R = 4\text{V}$ | - | - | 10 | μA |
| * ³ Half angle | $\theta^{1/2}$ | $I_F = 50\text{mA}$ | - | ± 20 | - | deg |

*3. $\theta^{1/2}$ is the off-axis angle where the luminous intensity is 1/2 the peak intensity

Characteristic Diagrams

Fig. 1 $I_F - V_F$

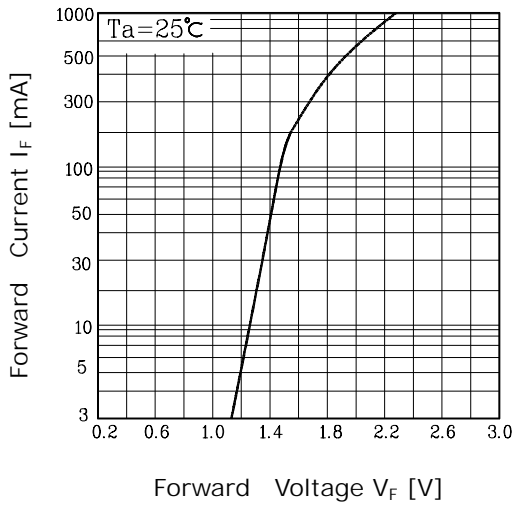


Fig. 2 $I_V - I_F$

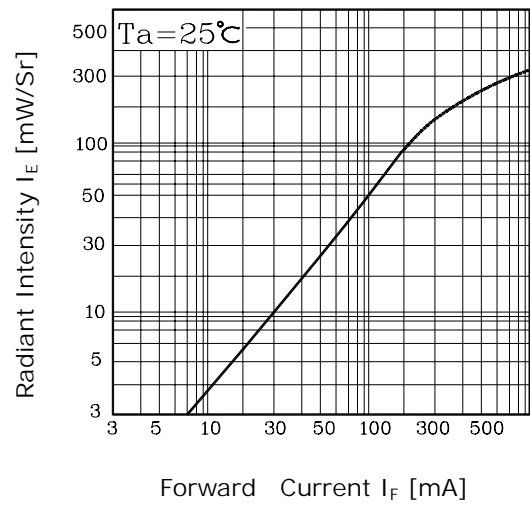


Fig. 3 $I_F - T_a$

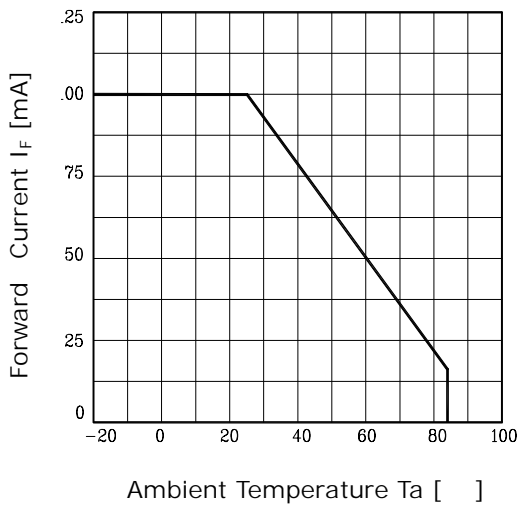


Fig. 4 Spectrum Distribution

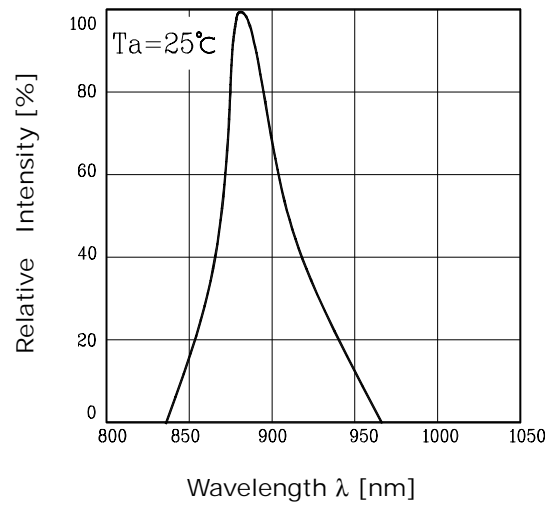


Fig. 5 Radiation Diagram

