

Features

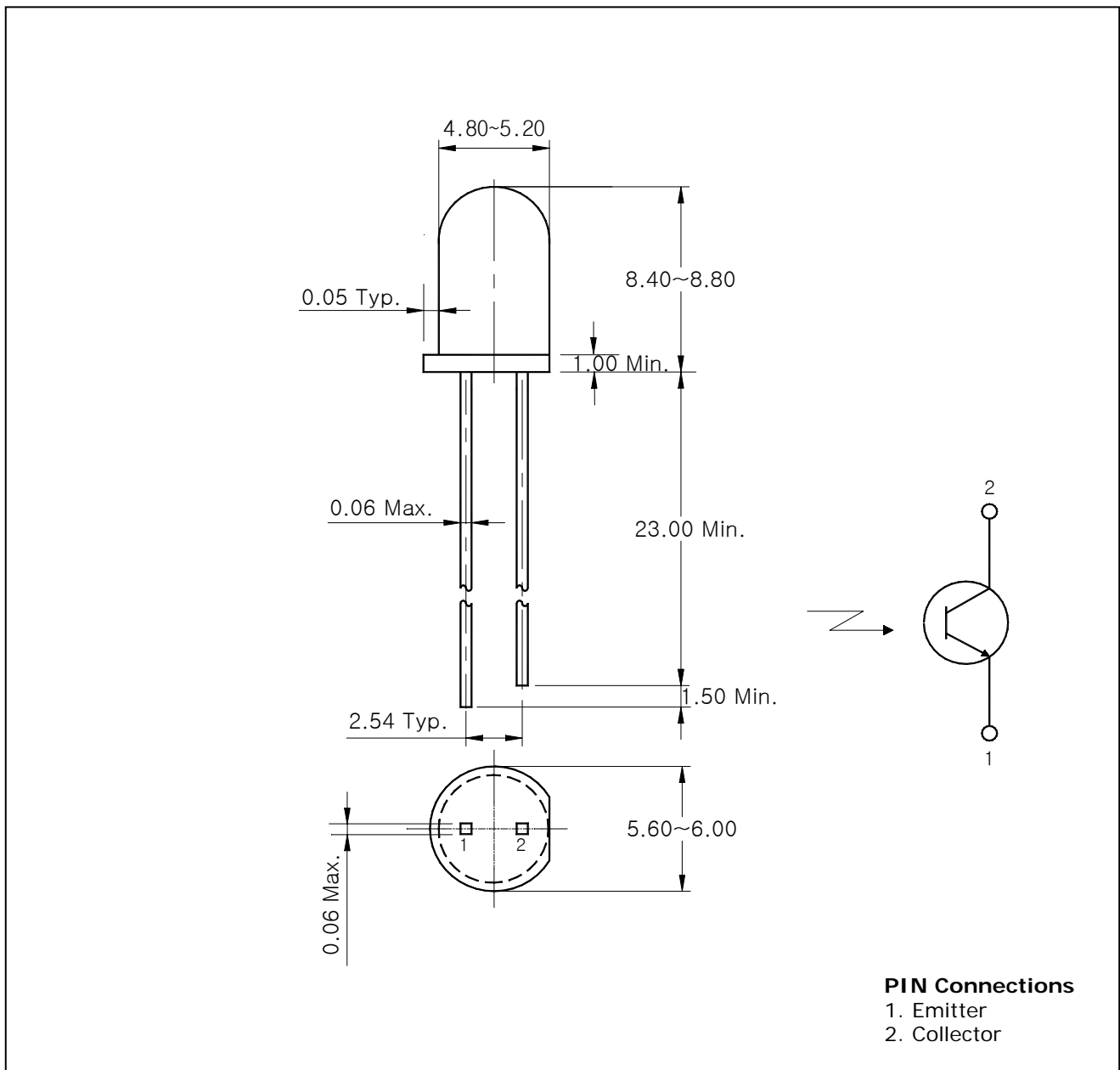
- Lensed for high sensitivity
- $\phi 5\text{mm}$ (T-1^{3/4}) all plastic mold type
- High reliability and stable characteristics
- Visible light cut-off type

Features

- VCR, Camcorders
- Floppy disk drivers
- Optical detectors

Outline Dimensions

unit : mm



Absolute Maximum Ratings

(Ta=25°C)

| Characteristic | Symbol | Rating | Unit |
|-----------------------------|-----------|----------------------|------|
| Collector-Emitter voltage | V_{CEO} | 35 | V |
| Emitter-Collector voltage | V_{ECO} | 6 | V |
| Collector current | I_C | 20 | mA |
| Collector power dissipation | P_D | 75 | mW |
| Operating temperature range | T_{opr} | -25 ~ 85 | °C |
| Storage temperature range | T_{stg} | -30 ~ 100 | °C |
| *1 Soldering temperature | T_{sol} | 260°C for 10 seconds | |

*1. Keep the distance more than 2.0mm from PCB to the bottom of Photo TR package

Electrical / Optical Characteristics

(T=25°C)

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|------------------------------------|----------------|--|------------|----------|------|------|
| Collector dark current | I_{CEO} | $V_{CEO}=10V, E_e=0$ | - | 0.05 | 0.5 | uA |
| *2 Light current | I_{CEL} | $V_{CE}=5V, E_e \cong 1mW/cm^2$ | - | 4.5 | - | mA |
| Current-Emitter saturation voltage | $V_{CE(sat)}$ | $I_C=0.5mA, E_e \cong 1mW/cm^2$ | - | 0.2 | - | V |
| Switching time | Rise time | $V_{CC}=10V, I_C=1mA$ $R_1=100\Omega$ | - | 2.5 | - | us |
| | Fall time | | | 3.8 | | |
| Spectral sensitivity | λ | - | 700 ~ 1000 | | | nm |
| Peak sensitivity wavelength | λ_P | - | - | 880 | - | nm |
| Half angle | $\theta_{1/2}$ | $I_F=20mA$ | - | ± 20 | - | deg |

*2. Tolerance = $\pm 30\%$

Characteristic Diagrams

Fig. 1 $I_{CEL} - E_e$

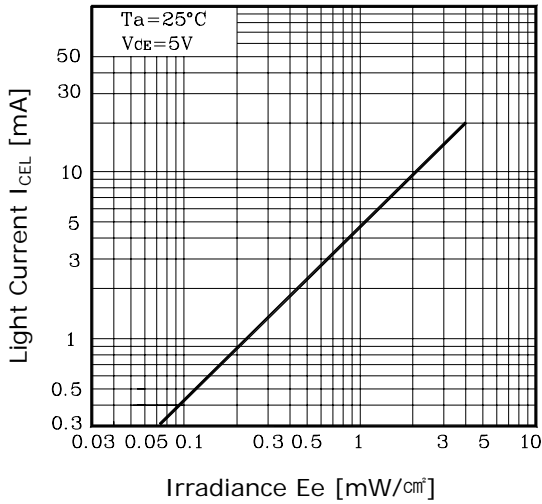


Fig. 2 $I_{CEL} - V_{CE}$

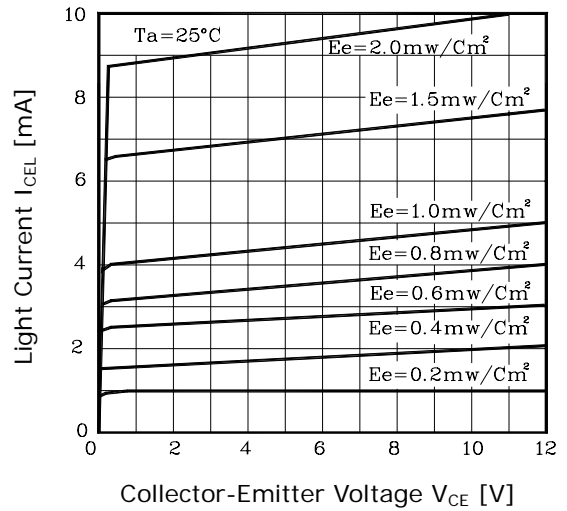


Fig. 3 $P_D - T_a$

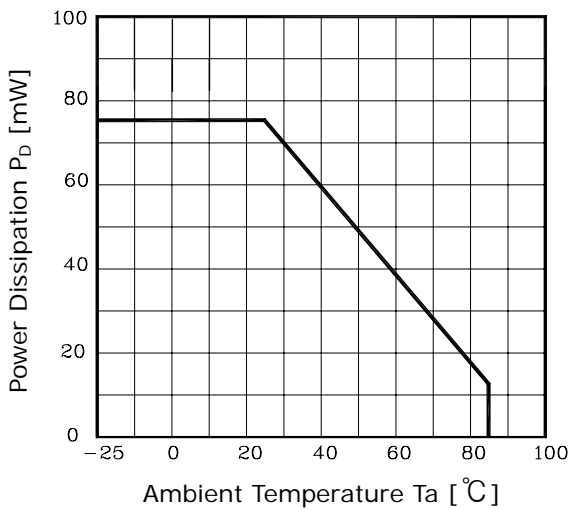


Fig. 4 $I_{CEO} - T_a$

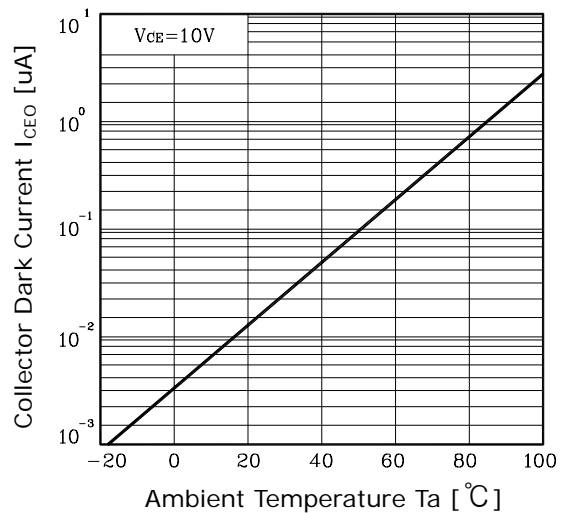


Fig. 5 Spectrum Sensitivity

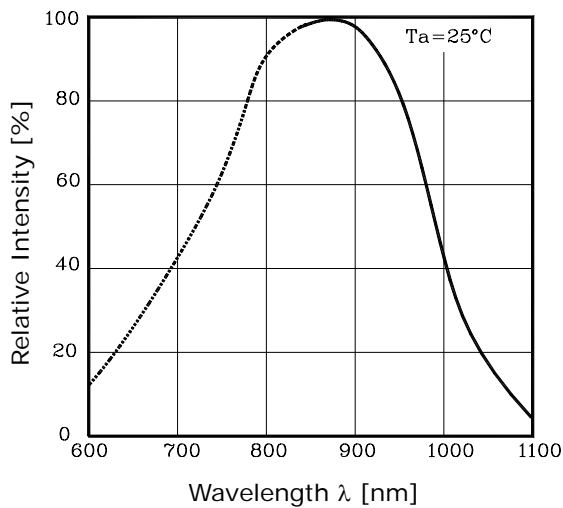
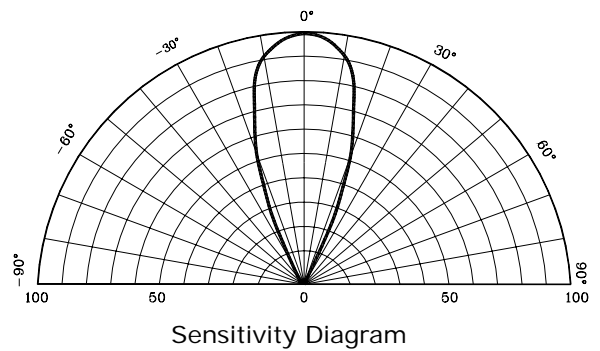


Fig. 6 Sensitivity Diagram



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