

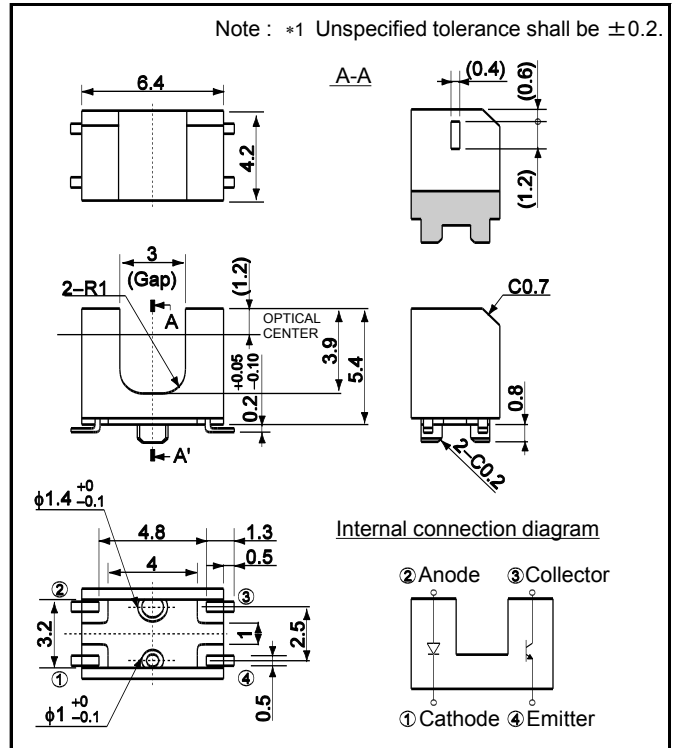
●Applications

- Printers
- Faxes
- Optical Control Equipment

●Features

- 1) Positioning pin results in high mounting accuracy
- 2) Gap3.0mm

●Dimensions (Unit : mm)



●Absolute maximum ratings (Ta = 25°C)

| Parameter | | Symbol | Value | Unit |
|--|---------------------------|-----------|------------|------|
| Input (Infrared light emitting diode) | Forward current | I_F | 35 | mA |
| | Reverse voltage | V_R | 5 | V |
| | Power dissipation | P_D | 70 | mW |
| Output (Phototransistor) | Collector-emitter voltage | V_{CEO} | 30 | V |
| | Emitter-collector voltage | V_{ECO} | 4.5 | V |
| | Collector current | I_C | 30 | mA |
| | Collector dissipation | P_C | 80 | mW |
| Operating temperature | | T_{opr} | -30 to +85 | °C |
| Storage temperature | | T_{stg} | -40 to +85 | °C |

●Electrical and optical characteristics (Ta = 25°C)

1) Input characteristics

| Parameter | Symbol | Conditions | Values | | | Unit |
|--------------------------------|-------------|---------------------|--------|------|------|---------------|
| | | | Min. | Typ. | Max. | |
| Forward voltage | V_F | $I_F = 10\text{mA}$ | 1.2 | 1.4 | 1.6 | V |
| Reverse current | I_R | $V_R = 5\text{V}$ | - | - | 10 | μA |
| Peak light emitting wavelength | λ_p | $I_F = 10\text{mA}$ | - | 850 | - | nm |

* Non-coherent Infrared light emitting diode used.

2) Output characteristics

| Parameter | Symbol | Conditions | Values | | | Unit |
|-----------------------------|-------------|-----------------------|--------|------|------|---------------|
| | | | Min. | Typ. | Max. | |
| Dark current | I_{CED} | $V_{CE} = 10\text{V}$ | - | - | 0.5 | μA |
| Peak sensitivity wavelength | λ_p | | - | 800 | - | nm |

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

3) Transfer characteristics

| Parameter | Symbol | Conditions | Values | | | Unit | |
|--------------------------------------|---------------|---|---|-------------------|------|------|---------------|
| | | | Min. | Typ. | Max. | | |
| Collector current | I_C | $V_{CE} = 5\text{V}$ $I_F = 10\text{mA}$ | 0.18 | 0.9 | - | mA | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_F = 10\text{mA}$ $I_C = 0.1\text{mA}$ | - | - | 0.4 | V | |
| Response time | Rise time | t_r | $V_{CC} = 5\text{V}, I_F = 10\text{mA}$ | - | 10 | - | μs |
| | Fall time | t_f | | $R_L = 100\Omega$ | - | 10 | |

●Electrical and optical characteristic curves

Fig.1 Relative Output Current vs. Distance(I)

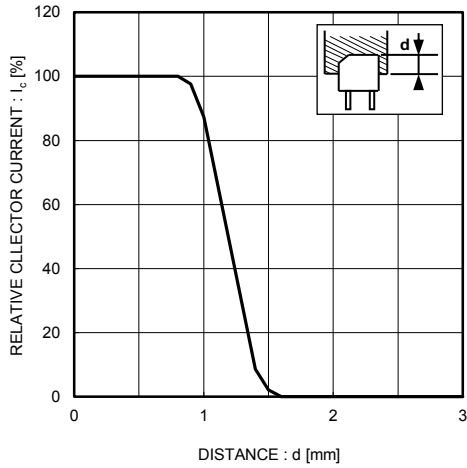


Fig.2 Relative Output Current vs. Distance(II)

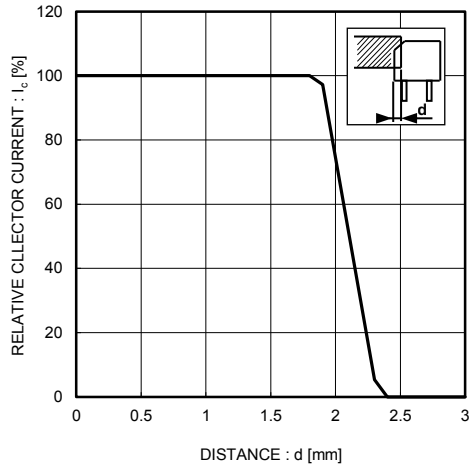


Fig.3 Forward Current vs. Forward Voltage

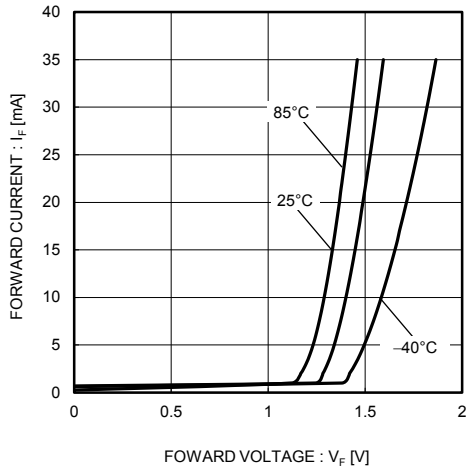


Fig.4 Relative Output vs. Ambient Temperature

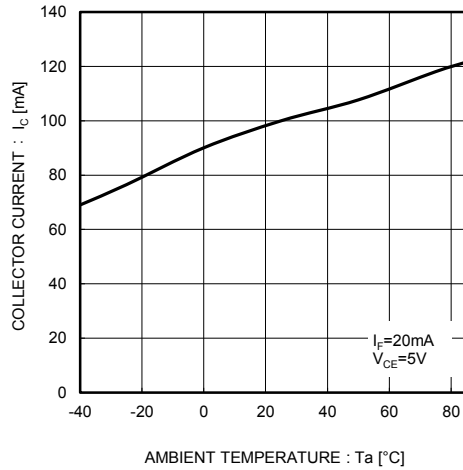


Fig.5 Forward Current Fall Off

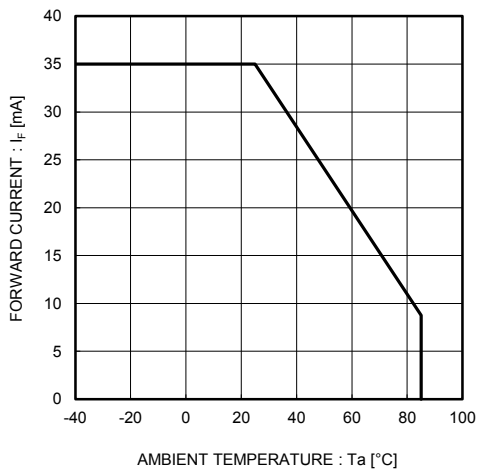
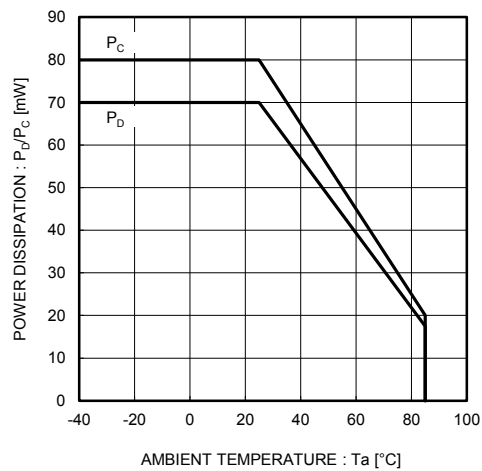


Fig.6 Power Dissipation/Collector Power Dissipation vs. Ambient Temperature



●Electrical and optical characteristic curves

Fig.7 Collector Current vs. Forward Current

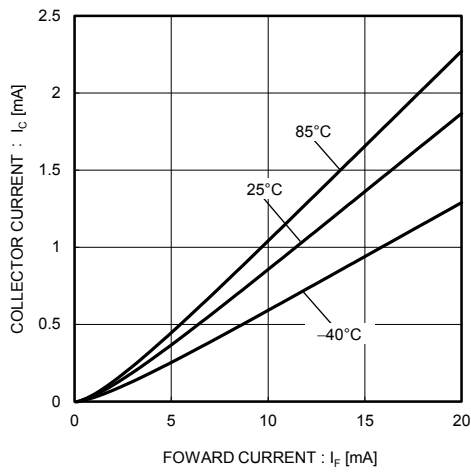


Fig.8 Dark Current vs. Ambient Temperature

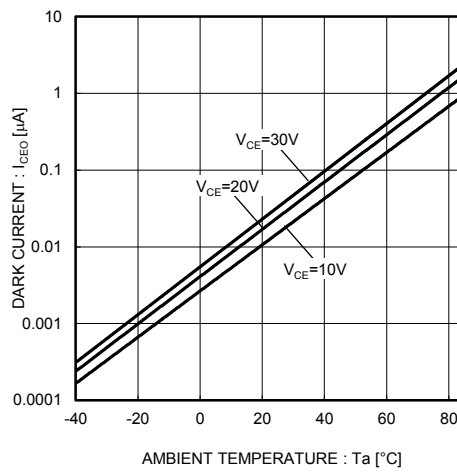
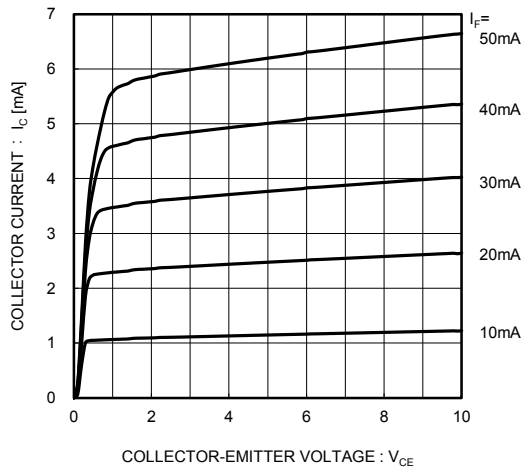


Fig.9 Output Characteristics



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