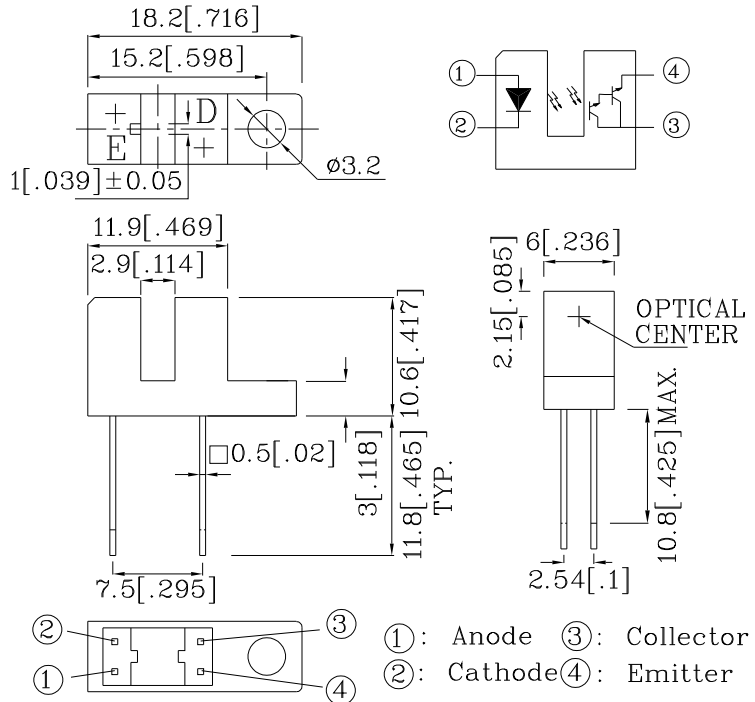


**\*Features**

- High sensing accuracy
- High current transfer ratio
- Both-sides mounting type
- RoHS COMPLIANT.

**\*Applications**

- OA equipment, such as floppy disk drives, printers, facsimiles, etc
- VCRs



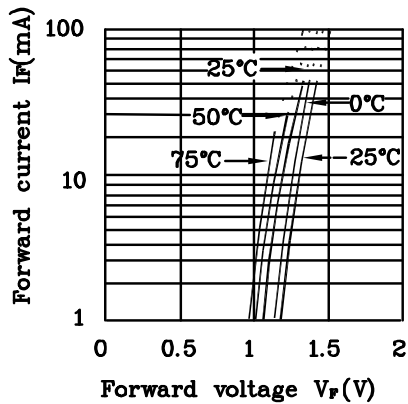
**Absolute Maximum Ratings (T<sub>A</sub>=25°C)**

| Parameter   |  | Symbol           | Rating   | Unit |
|---|--|------------------|----------|------|
| Input   | Forward current  | I <sub>F</sub>   | 50       | mA   |
|   | Reverse voltage  | V <sub>R</sub>   | 6        | V    |
|   | Power dissipation  | P <sub>d</sub>   | 75       | mW   |
|   | Peak Forward Current (Pulse Width <100uS, Duty Cycle=1%) | I <sub>FP</sub>  | 1        | A    |
| Output  | Collector-emitter voltage                                | V <sub>CEO</sub> | 35       | V    |
|   | Emitter-collector voltage                                | V <sub>ECO</sub> | 6        | V    |
|   | Collector current  | I <sub>C</sub>   | 40       | mA   |
|   | Collector power dissipation                              | P <sub>C</sub>   | 75       | mW   |
| Operating temperature                                     |  | T <sub>opr</sub> | -25~+85  | °C   |
| Storage temperature                                       |  | T <sub>stg</sub> | -40~+100 | °C   |
| Soldering temperature (1/16 inch from body for 5 seconds) |  | T <sub>sol</sub> | 260      | °C   |

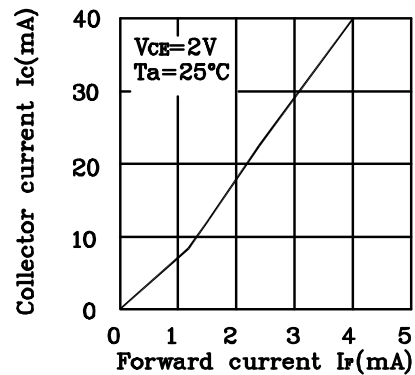
**Electrical-optical Characteristics at TA=25°C**

| Parameter                |                                      | Symbol        | Conditions                          | Min.   | Typ. | Max.      | Unit          |                 |
|--------------------------|--------------------------------------|---------------|-------------------------------------|--|------|-----------|---------------|-----------------|
| Input                    | Forward voltage                      | $V_F$         | $I_F=20\text{mA}$                   | 1.0  | 1.2  | 1.5       | V             |                 |
|                          | Peak forward voltage                 | $V_{FM}$      | $I_{FM}=0.5\text{A}$                | -  | 2    | 3         | V             |                 |
|                          | Reverse current                      | $I_R$         | $V_R=6\text{V}$                     | -  | -    | 10        | $\mu\text{A}$ |                 |
| Output                   | Collector dark current               | $I_{CEO}$     | $V_{CE}=10\text{V}, I_F=0\text{mA}$ | -  | -    | $10^{-6}$ | A             |                 |
| Transfer Characteristics | Current transfer ratio               | CTR           | $V_{CE}=2\text{V}, I_F=1\text{mA}$  | -  | 650  | -         | %             |                 |
|                          | Collector-emitter saturation voltage | $V_{CE(SAT)}$ | $I_F=2\text{mA}, I_C=1\text{mA}$    | -  | -    | 1.0       | V             |                 |
|                          | Response time                        | Rise time     | $t_r$                               | $V_{CE}=2\text{V}, I_C=10\text{mA}$<br>$R_L=100\Omega$ | -    | 90        | 400           | $\mu\text{Sec}$ |
|                          |                                      | Fall time     | $t_f$                               |  | -    | 80        | 300           | $\mu\text{Sec}$ |

**Fig.1 FORWARD CURRENT Vs. FORWARD VOLTAGE**



**Fig.2 COLLECTOR CURRENT Vs. FORWARD CURRENT**



**Fig.3 COLLECTOR CURRENT Vs. COLLECTOR-EMITTER VOLTAGE**

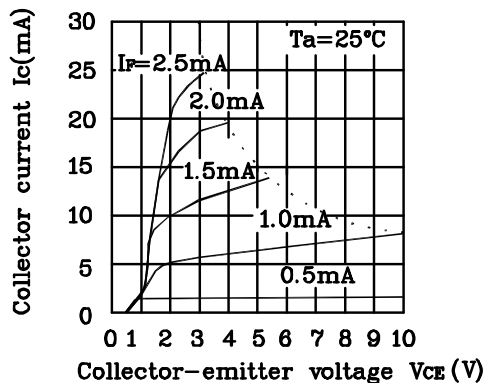


Fig.4 Collector Current vs. Ambient Temperature

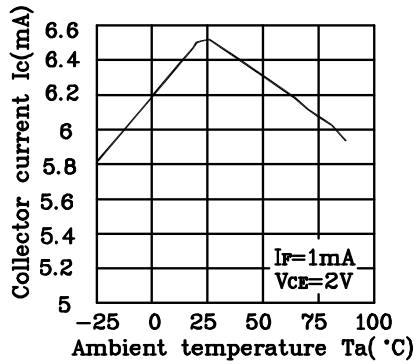


Fig.5 Collector-emitter Saturation Voltage vs. Ambient Temperature

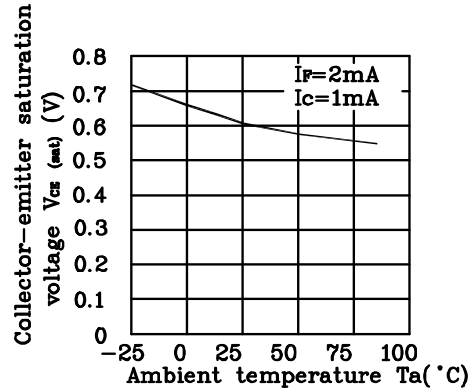


Fig.6 Relative Collector Current vs. Shield Distance(1)

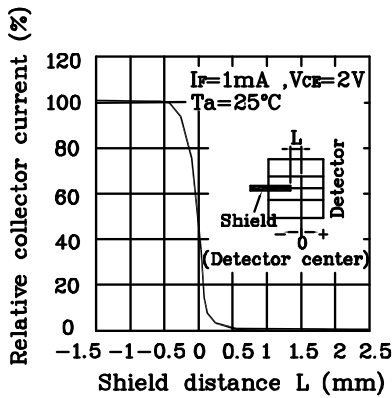


Fig.7 Relative Collector Current vs. Shield Distance(2)

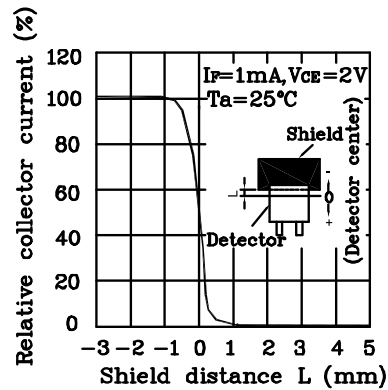
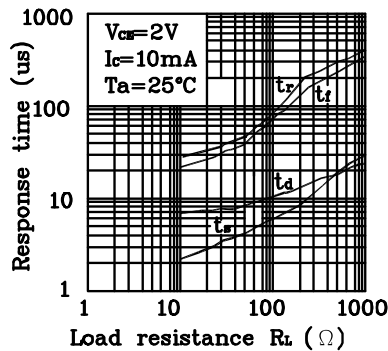
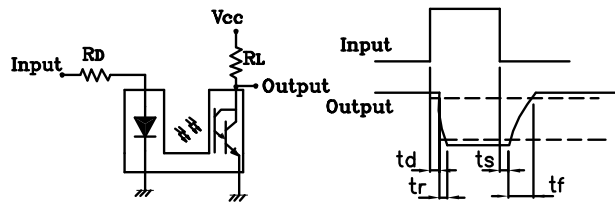
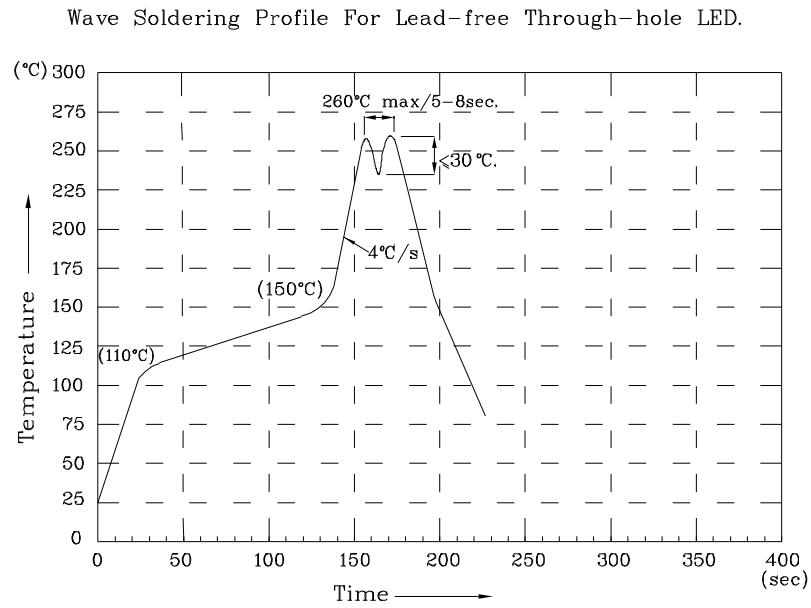


Fig.8 Response Time vs. Load Resistance



Test Circuit for Response Time





NOTES:

- 1.Recommend the wave temperature 245°C~260°C.The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85 degree°C.
- 3.The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4.No more than once.