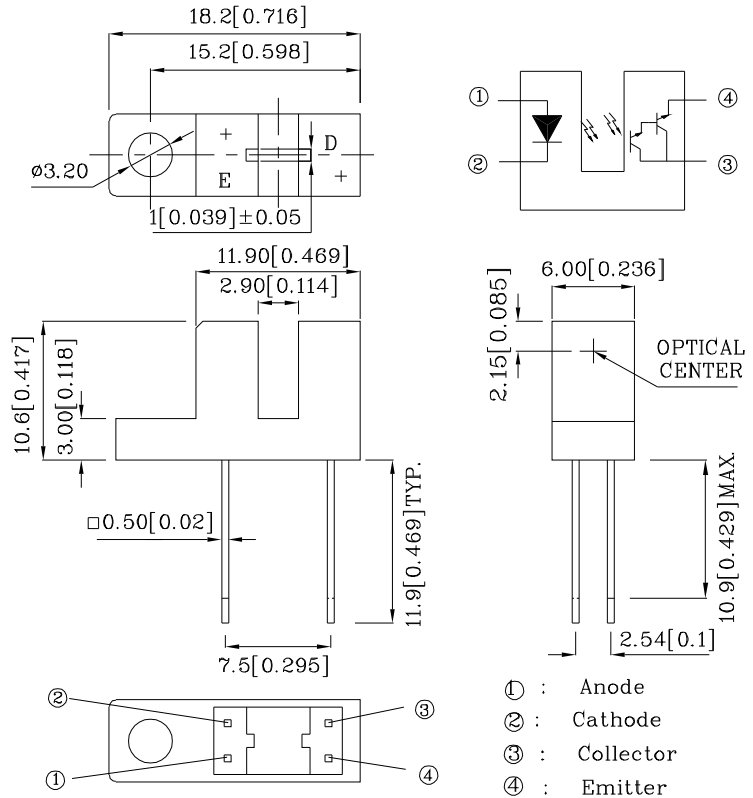


***Features**

- 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



UNIT : MM[INCH]
TOLERANCE : $\pm 0.25[\pm 0.01]$ UNLESS OTHERWISE NOTED.

Absolute Maximum Ratings (TA=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current	IF	50	mA
	Reverse voltage	VR	6	V
	Power dissipation	Pd	75	mW
	Peak Forward Current (Pulse Width $\leq 100\mu\text{s}$, Duty Cycle =1%)	IFP	1	A
Output	Collector-emitter voltage	VCEO	35	V
	Emitter-collector voltage	VECO	6	V
	Collector current	IC	40	mA
	Collector power dissipation	PC	75	mW
Operating temperature		Topr	-25~+85	°C
Storage temperature		Tstg	-40~+100	°C
Soldering temperature (1/16 inch from body for 5 seconds)		Tsol	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	μA	
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	$V_{CE}=2\text{V}, I_C=10\text{mA}$ $R_L=100\ \Omega$	-	90	400	μSec
		Fall time	t_f		-	80	300	μSec

Fig.1 FORWARD CURRENT Vs. FORWARD VOLTAGE

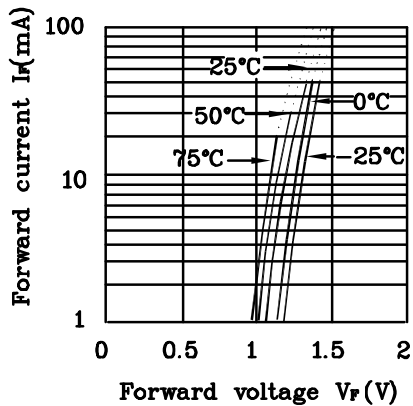


Fig.2 COLLECTOR CURRENT Vs. FORWARD CURRENT

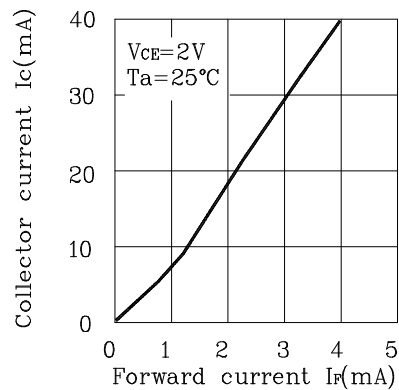


Fig.3 COLLECTOR CURRENT Vs. COLLECTOR-EMITTER VOLTAGE

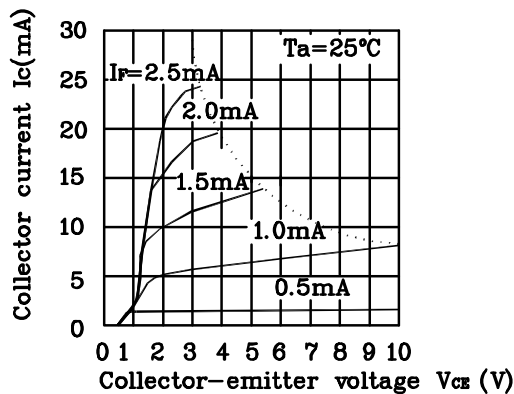


Fig.4 Collector Current vs. Ambient Temperature

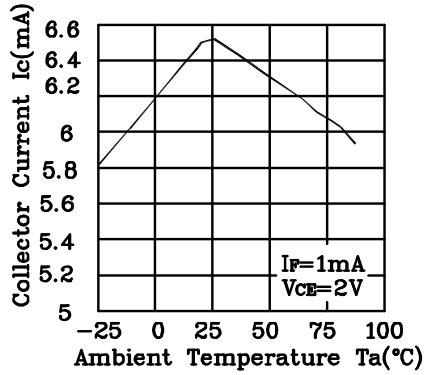


Fig.5 Collector-emitter Saturation Voltage vs. Ambient Temperature

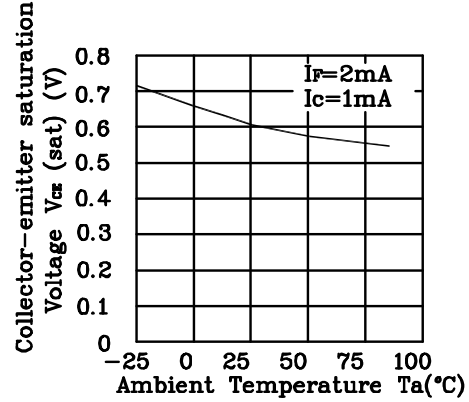


Fig.6 Relative Collector Current vs. Shield Distance(1)

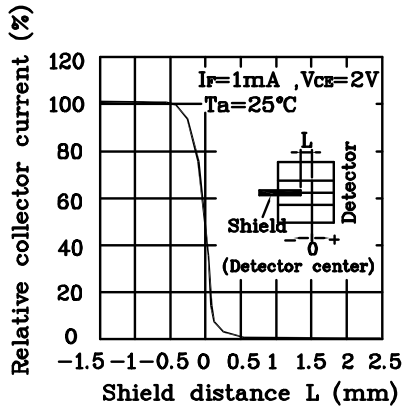


Fig.7 Relative Collector Current vs. Shield Distance(2)

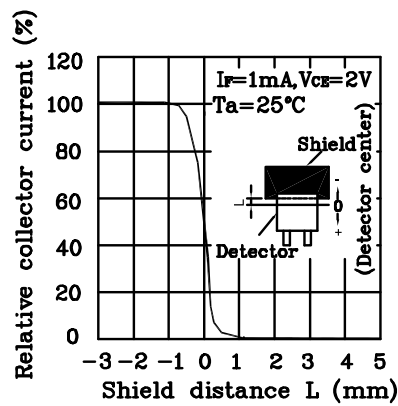
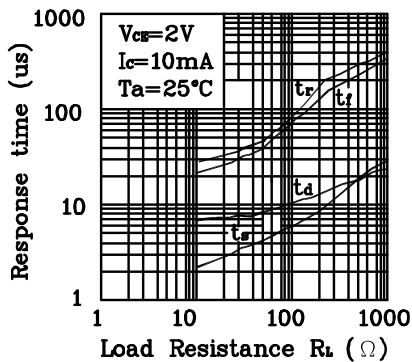
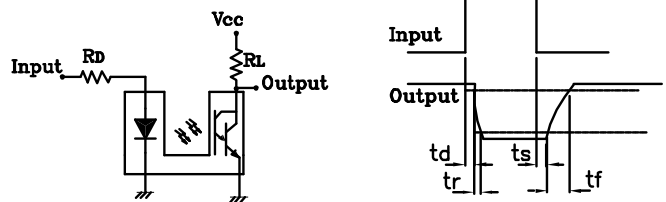


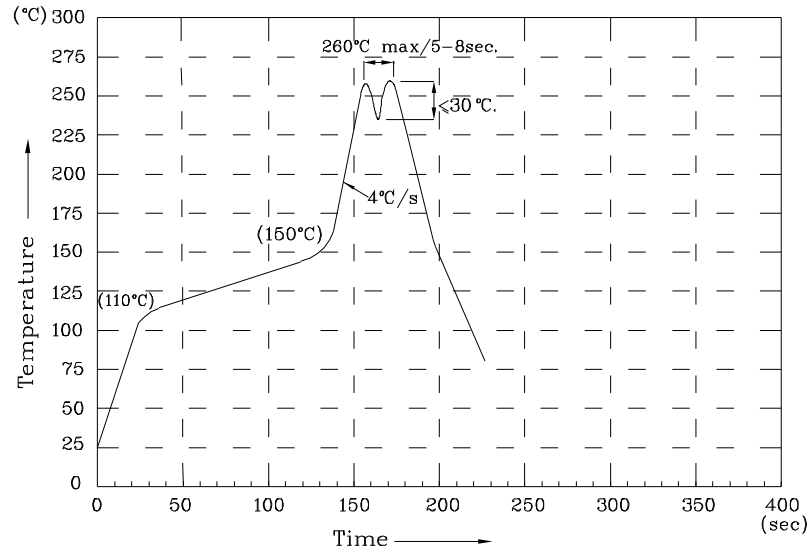
Fig.8 Response Time vs. Load Resistance



Test Circuit for Response Time



Wave Soldering Profile For Lead-free Through-hole LED.



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.