

SIT302

Photo Interrupter

The SIT302 is a high performance transmissive type photointerrupter, combines high-output GaAs IRED with high sensitive phototransistor.

Features

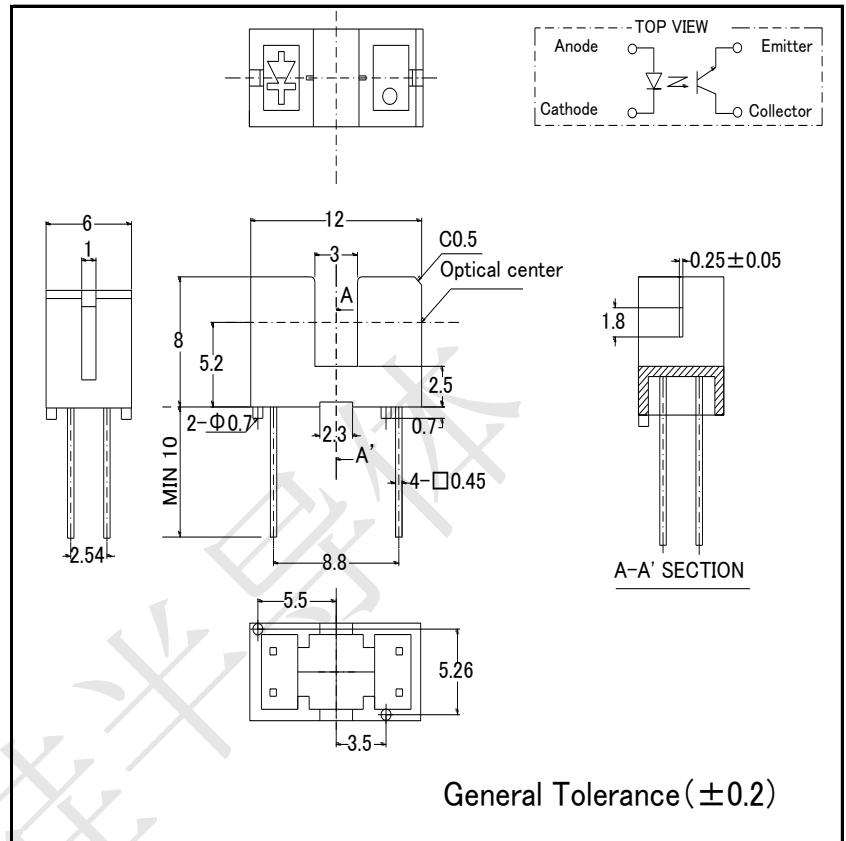
- PCB direct mount type
- GAP:3.0mm
- High resolution (slit 0.25mm)

Applications

- CD changers
- Printers
- Scanners
- Encoders

Dimensions

(Unit: mm)



Maximum Ratings

(Ta=25°C)

Item		Symbol	Rating	Unit
Input	Reverse Voltage	V_R	5	V
	Forward current	I_F	60	mA
	Pulse Forward Current ^{*1}	I_{FP}	1	A
	Power Dissipation	P_D	100	mW
Output	Collector-Emitter Voltage	V_{CEO}	30	V
	Emitter-Collector Voltage	V_{ECO}	5	V
	Collector Current	I_C	40	mA
	Collector power dissipation	P_C	100	mW
Operating Temperature Range ^{*2}		Topr.	-20 ~ +85	°C
Storage Temperature Range ^{*2}		Tstg.	-30 ~ +100	°C
Soldering temp. ^{*3}		Tsol.	260	°C

* 1. Pulse width (tw) $\leq 100\mu s$, Period (T) = 10msec.

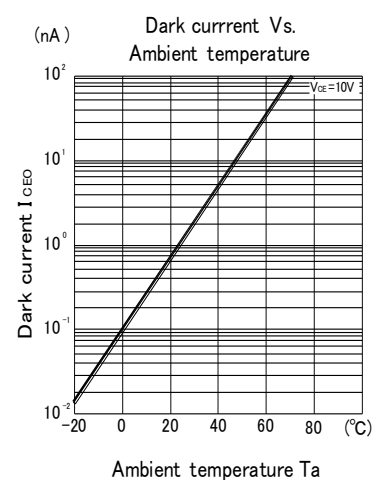
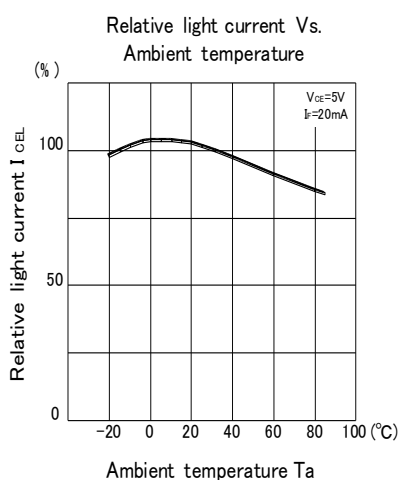
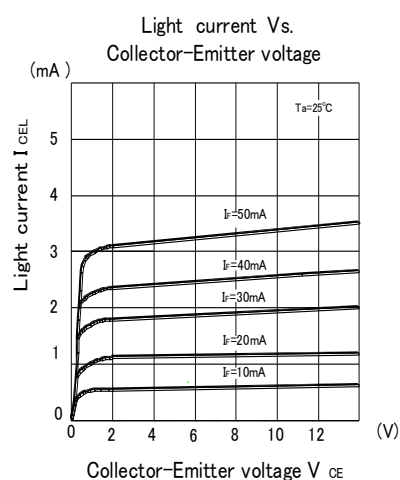
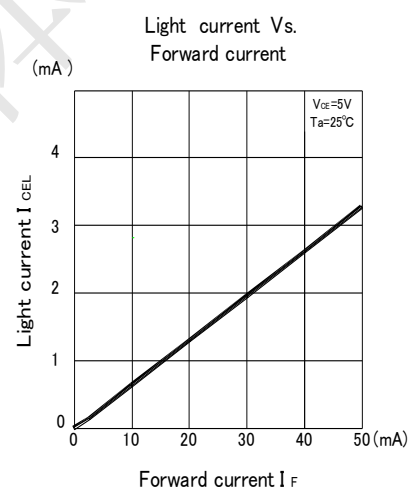
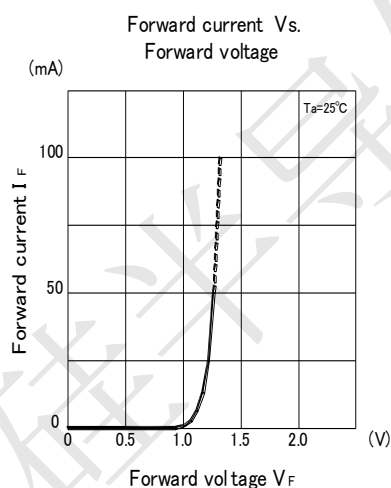
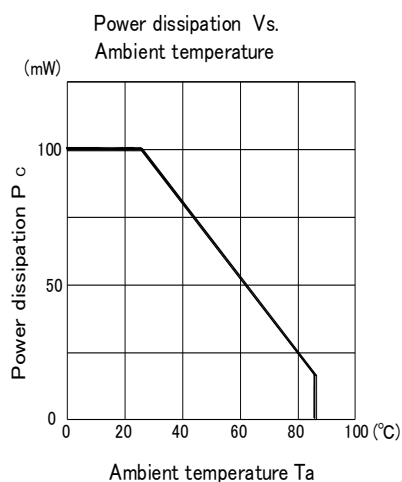
* 2. No icebond or dew. *3. The soldering should be 1mm away from bottom of the holder. t=within 5s

The contents of this data sheet are subject to change without advance notice for the purpose of improvement. When using this product, would you please refer to the latest specifications.

Electro-Optical Characteristics

(Ta=25°C)

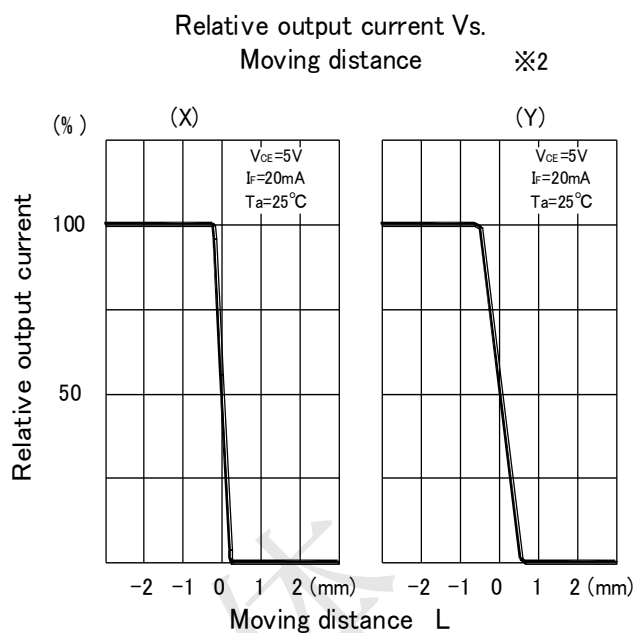
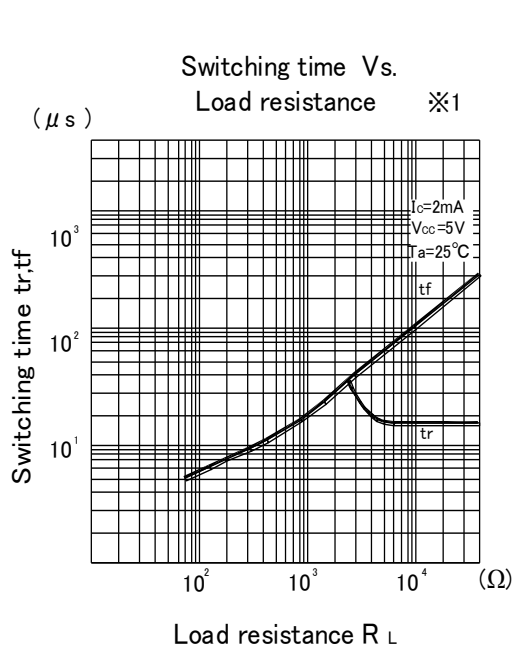
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage	$I_F=20\text{mA}$	-	1.2	1.4	V
	Peak Wavelength	$I_F=20\text{mA}$	-	940	-	nm
	Reverse current	$V_R=5\text{V}$	-	-	10	μA
Output	Dark current	$V_{CE}=10\text{V}$ $E_V=0\text{lx}$	-	1	100	nA
Transfer characteristics	Collector Current	$V_{CE}=5\text{V}$, $I_F=20\text{mA}$ Non-shading	0.1	-	2.5	mA
	Leakage Current	$V_{CE}=5\text{V}$, $I_F=20\text{mA}$ Shading	-	0.2	10	μA
	C-E Saturation voltage	$I_C=0.05\text{mA}$, $I_F=30\text{mA}$	-	0.15	0.4	V
	Rise Time	$V_{CC}=5.0\text{V}$, $I_C=2\text{mA}$	-	4	-	μsec
	Fall Time	$R_L=100\Omega$	-	5	-	μsec



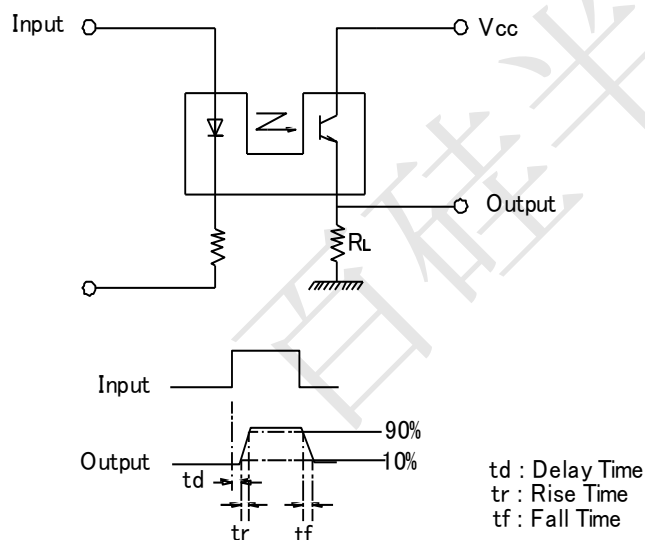
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Photo Interrupter(Transmissive)

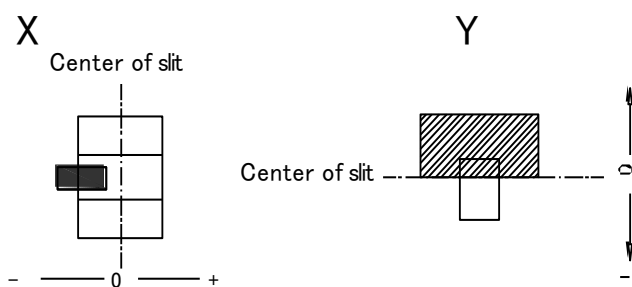
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*1 Switching time measurement circuit



*2 Method of measuring position detection characteristic



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Packing Specification

- 1.Fixed quantity (max 1000pcs) of the products are packed into plastic bag
- 2.Six bags of the products are put into #2 box
- 3.Two #2 boxes are put into #3 box(max 12000pcs)
- 4.Packing slip is pasted on #3 box

