

SIT504S

Photo Interrupter

The SIT504S is a high performance transmissive type photointerrupter, combines high-output GaAs IRED with high sensitive phototransistor.

Features

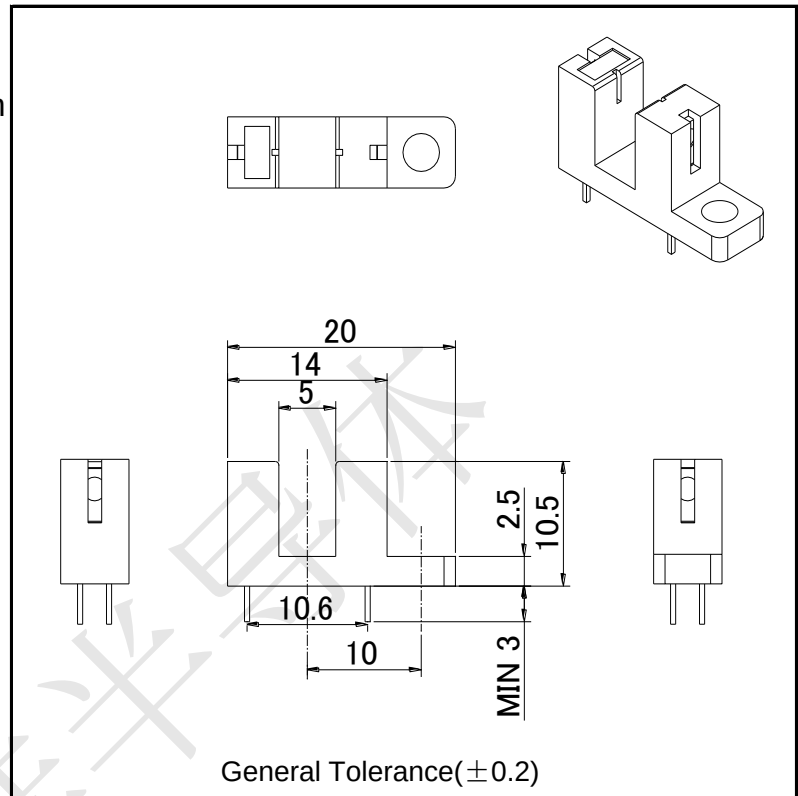
- PCB direct mount type
- Single-sided screw-mount
- 5.0mm gap
- Easy to mount

Applications

- Printers
- Scanners
- plotters
- Auto stampers

Dimensions

(Unit: mm)



Maximum Ratings

(Ta=25°C)

Item		Symbol	Rating	Unit
Input	Reverse Voltage	VR	5	V
	Forward current	I _F	60	mA
	Pulse Forward Current ^{*1}	IFP	1	A
	Power Dissipation	PD	100	mW
Output	Collector-Emitter Voltage	V _{CEO}	30	V
	Emitter-Collector Voltage	V _{ECO}	5	V
	DC Collector Current	I _C	40	mA
	Collector power dissipation	PC	100	mW
Operating Temperature Range ^{*2}		Topr.	-20 ~ +85	°C
Storage Temperature Range ^{*2}		Tstg.	-30 ~ +85	°C
Soldering temp. ^{*3}		Tsol.	260	°C

* 1. Pulse width (tw) ≤ 100μs, Period (T) = 10msec.

* 2. No icebond or dew.

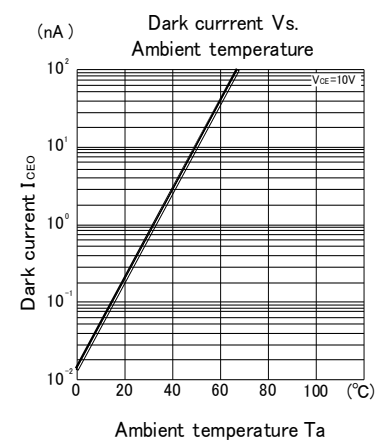
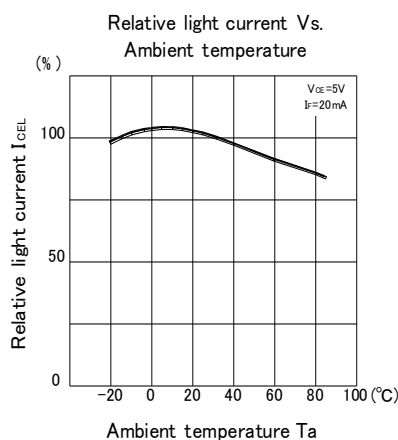
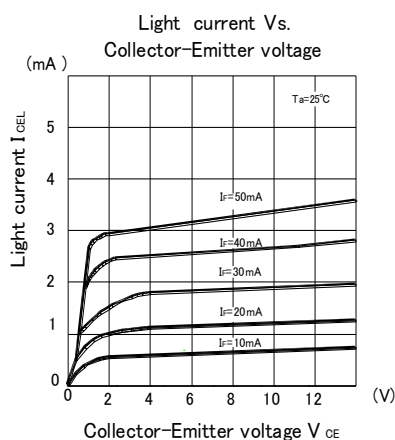
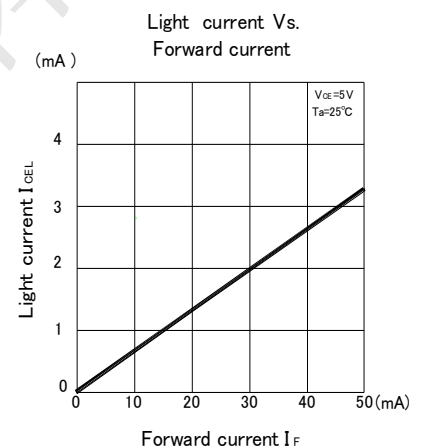
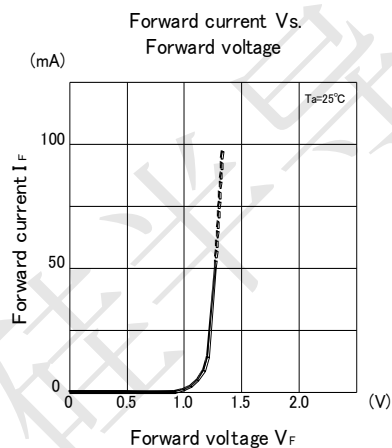
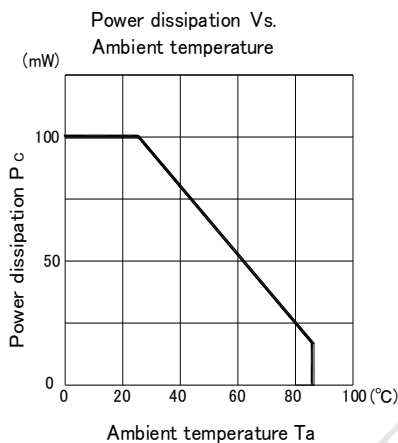
* 3. For MAX.5 seconds at the position of 1mm from the package

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.

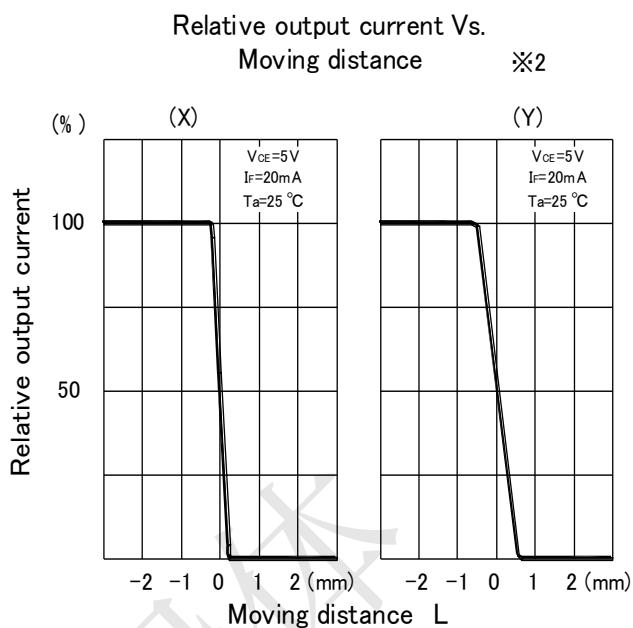
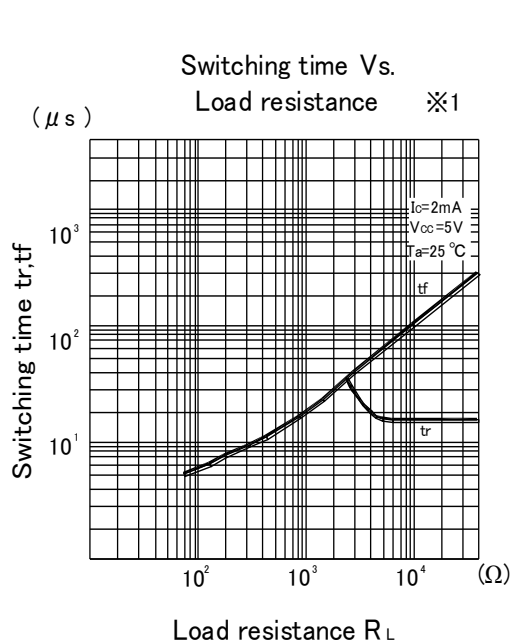
Electro-Optical Characteristics

(Ta=25°C)

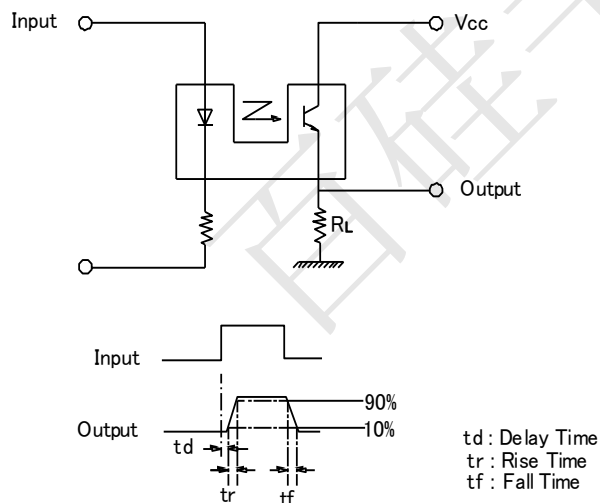
Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage	V_F	$I_F=20\text{mA}$	-	1.2	1.4	V
	Peak Wavelength	λ_p	$I_F=20\text{mA}$	-	940	-	nm
	Reverse current	I_R	$V_R=5\text{V}$	-	-	10	μA
Output	Dark current	I_{CEO}	$V_{CE}=10\text{V}$ $E_V=0\text{lx}$	-	1	100	nA
Transfer characteristics	Collector Current	I_C	$V_{CE}=5.0\text{V}$, $I_F=20\text{mA}$ Non-shading	0.4	-	4.0	mA
	Leakage Current	I_{CEOD}	$V_{CE}=5.0\text{V}$, $I_F=20\text{mA}$ shading	-	0.5	10	μA
	C-E sat.voltage	$V_{CE(sat)}$	$I_C=0.2\text{mA}$, $I_F=20\text{mA}$	-	0.15	0.4	V
	Rise Time	t_r	$V_{CC}=5.0\text{V}$, $I_C=2\text{mA}$ $R_L=100\Omega$	-	4	-	μsec
	Fall Time	t_f		-	5	-	μsec



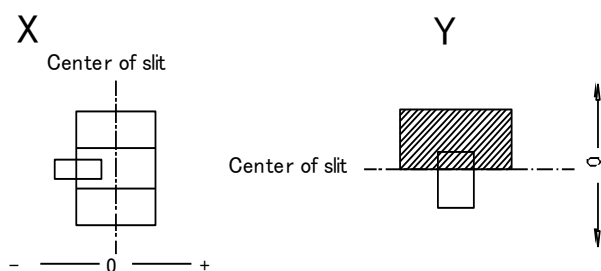
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*1 Switching time measurement circuit



*2 Method of measuring position detection characteristic



Packing Specification

- 1.Fixed quantity (max 500pcs) of the products are packed into plastic bag
- 2.Eingt bags of the products are put into #2 box
- 3.Two #2 boxes are put into #3 box(max 8000pcs)
- 4.Packing slip is pasted on #3 box

