

SIT501

Photo Interrupter

The SIT501 is a photointerrupter, high-performance standard type, combines high-output GaAs IRED with high sensitive phototransistor.

Features

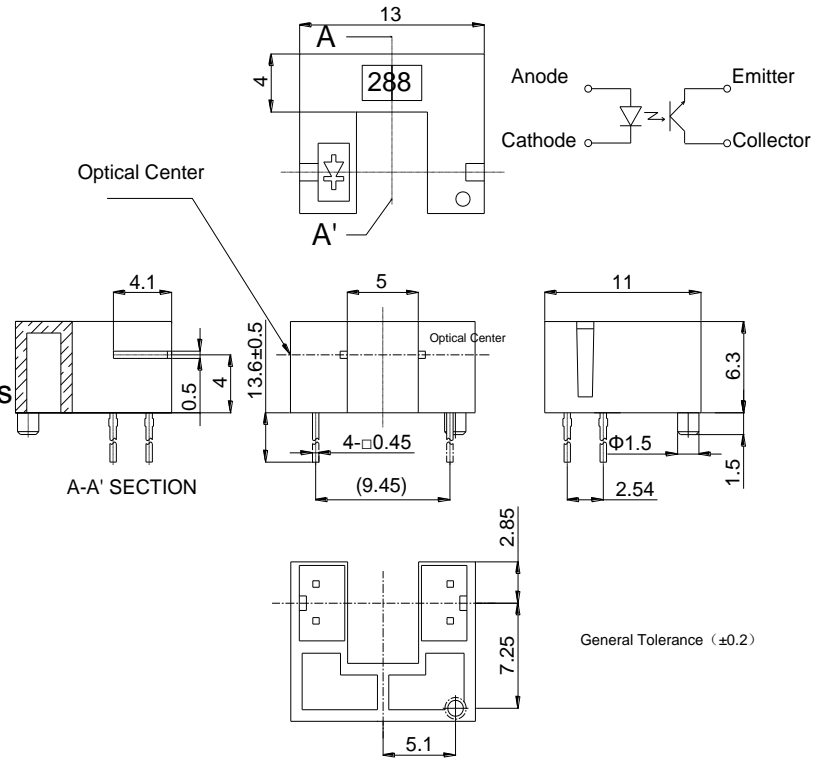
- PCB direct mount type
- GAP:5.0mm
- With the installation positioning boss
- Horizontal slit
- RoHS Compliance

Applications

- FAX
- Mouses
- Rotary encoders

Dimensions

(unit: mm)



Maximum Ratings

(Ta=25°C)

Item		Symbol	Rating	Unit
Input	Power dissipation	P_D	100	mW
	Forward current	I_F	60	mA
	Reverse voltage	V_R	5	V
Output	Collector power dissipation	P_C	100	mW
	Collector current	I_C	40	mA
	Collector-Emitter voltage	V_{CEO}	30	V
	Emitter-Collector voltage	V_{ECO}	5	V
Operating temperature ^{*1}		Topr.	-20 ~ +85	°C
Storage temperature ^{*1}		Tstg.	-30 ~ +85	°C
Soldering temperature ^{*2}		Tsol.	260	°C

*1. No icebond or dew

*2. The soldering should be 1.2mm away from bottom of the holder t=within 3s

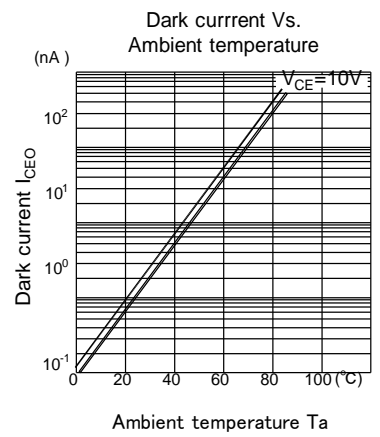
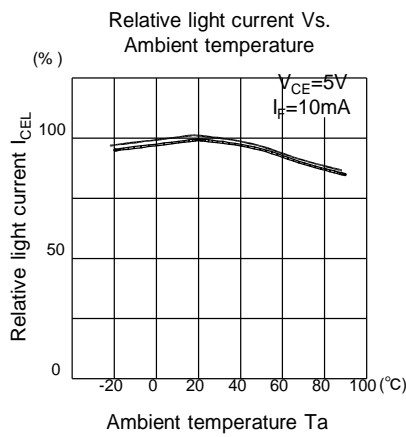
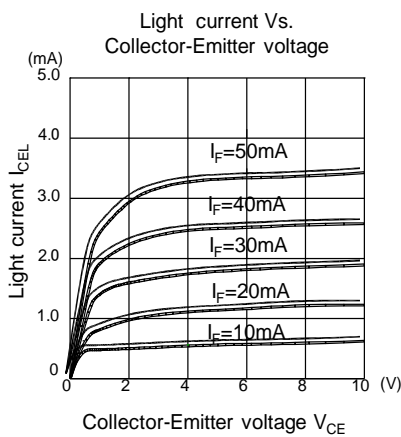
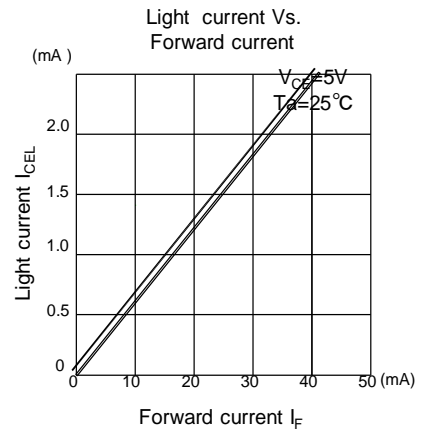
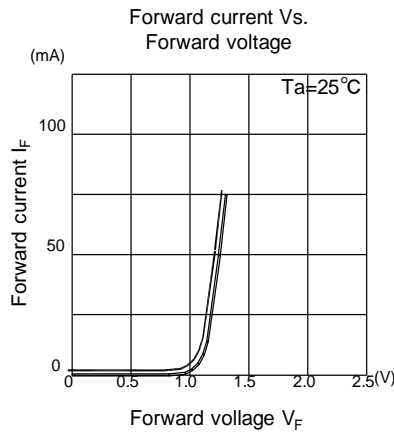
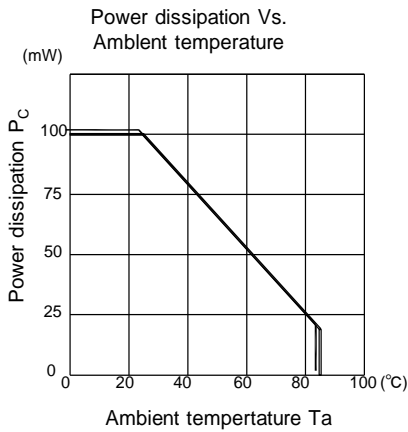
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Electro-Optical Characteristics

(Ta=25°C)

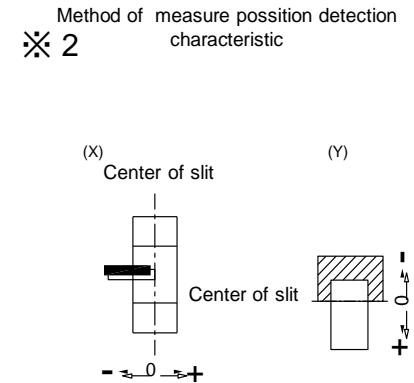
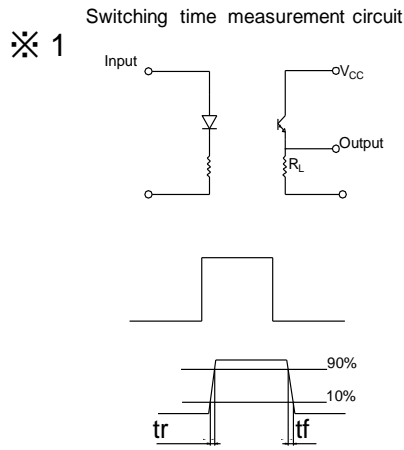
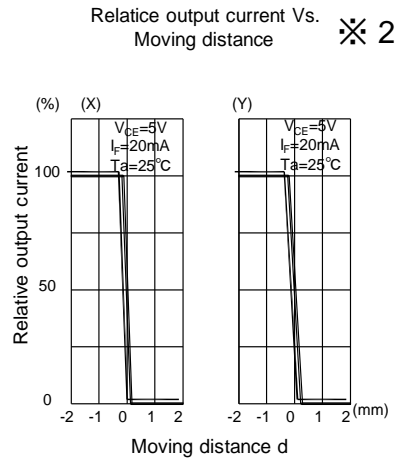
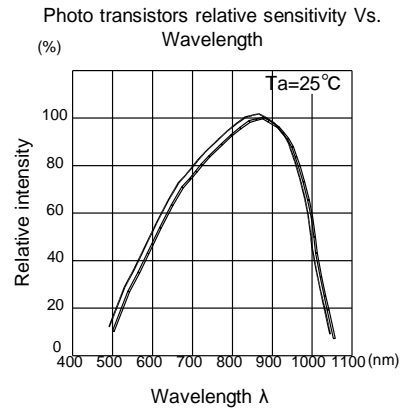
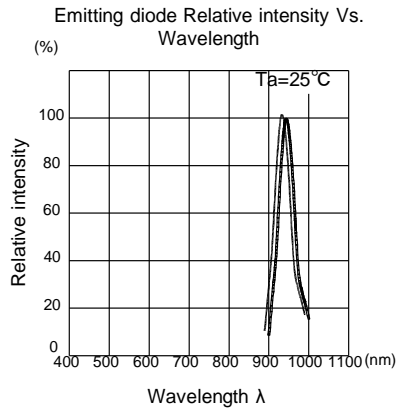
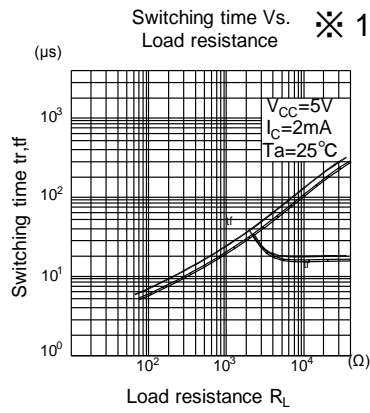
Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage	V_F	$I_F=20\text{mA}$	-	1.2	1.4	V
	Reverse current	I_R	$V_R=5\text{V}$	-	-	10	μA
	Peak wavelength	λ_P	$I_F=20\text{mA}$	-	940	-	nm
Output	Dark current	I_{CEO}	$V_{CE}=10\text{V}$ $E_V=0\text{ lx}$	-	1	100	nA
	Peak SENS.Wavelength	λ_P	-	-	880	-	nm
Transfer characteristics	Light current	I_{CEL}	$I_F=20\text{mA}$, $V_{CE}=5\text{V}$, Non-shading	0.2	-	10	mA
	Leak current	I_{CEOD}	$I_F=20\text{mA}$, $V_{CE}=5\text{V}$, Shading	-	0.5	10	μA
	C-E sat.voltage	$V_{CE(sat)}$	$I_F=20\text{mA}$ $I_C=0.1\text{mA}$	-	0.15	0.4	V
	Rise time	tr	$I_C=2\text{mA}$ $V_{CC}=5\text{V}$ $R_L=100\ \Omega$	-	4	-	μs
	Fall time	tf		-	5	-	μs



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.

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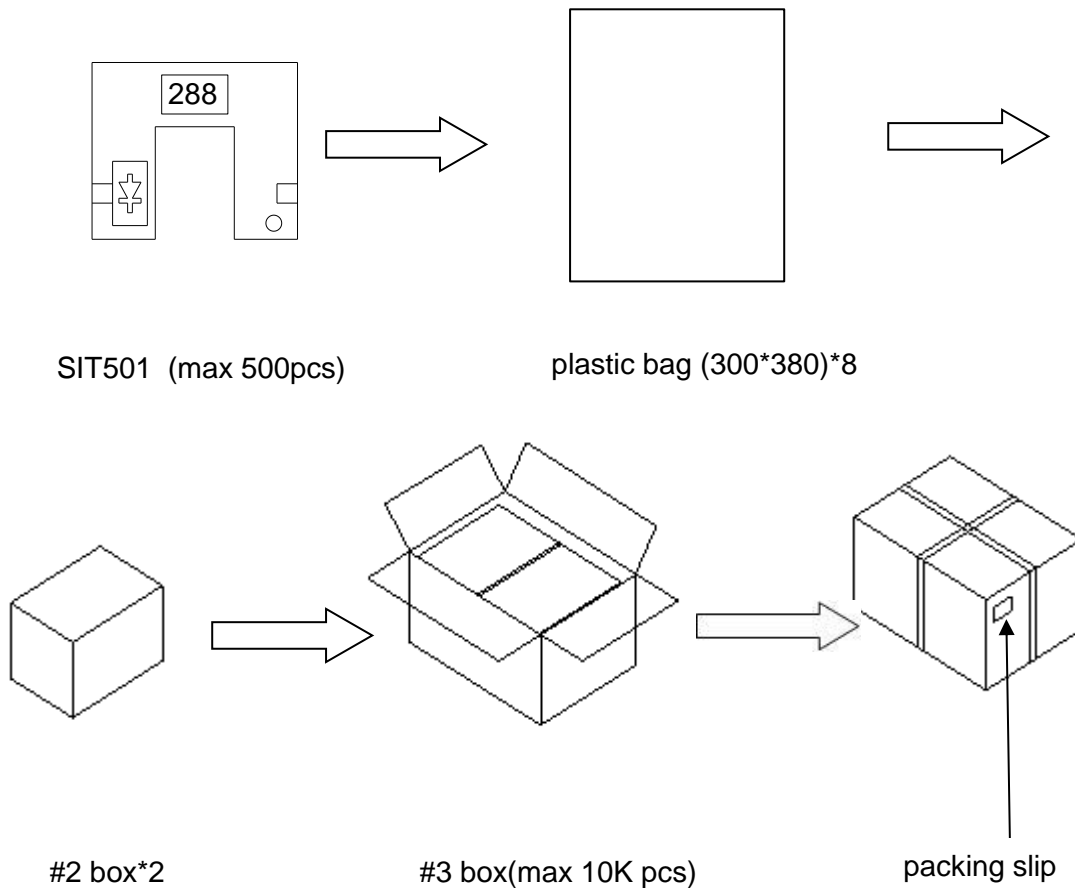
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Photo Interrupter

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Packing Specification

- 1.Fixed quantity (max 500pcs) of the products are packed into plastic bag(300*380)
- 2.Seven 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.



SIT501 Photo Interrupter

Unit:mm

The SIT501 is a photointerrupter high-performance standard type, combines high-output GaAs IRED with high sensitive phototrasistor.

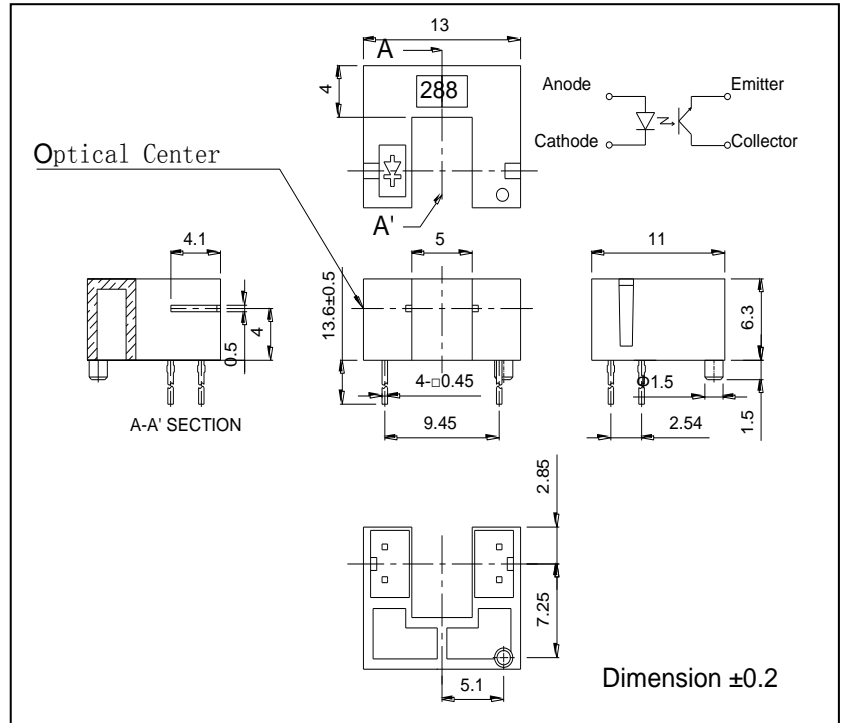
Features

- PWB direct mount type
- GAP:5.0mm
- With the installation positioning boss
- Horozontal slit
- RoHS Compliance

Application

- FAX
- Mouses
- Rotary encoders

DIMENSIONS



MAXIMUM RATINGS

Item		Symbol	Ratings	Unit
Input	Power dissipation	P_D	100	mW
	Forward current	I_F	60	mA
	Reverse voltage	V_R	5	V
Output	Collector power dissipation	P_C	100	mW
	Collector current	I_C	40	mA
	Collector-Emitter voltage	V_{CEO}	30	V
	Emiter-Collector coltage	V_{ECO}	5	V
Operating temperature *1		T_{opr}	-20~+85	°C
Storage temperature *1		T_{stg}	-30~+85	°C
Soldering temperature *2		T_{sol}	260	°C

* 1.NO icebound or dew

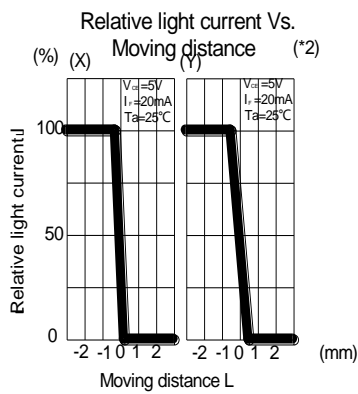
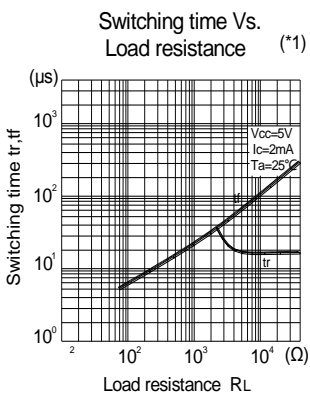
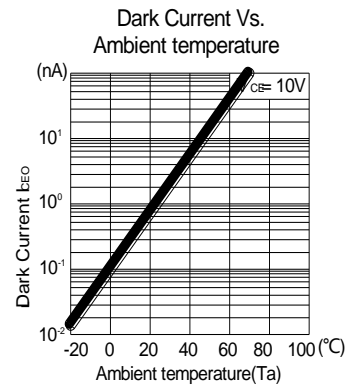
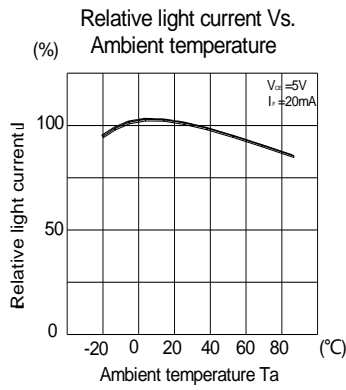
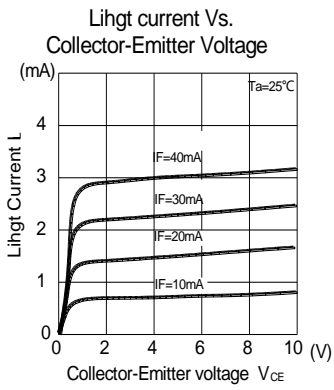
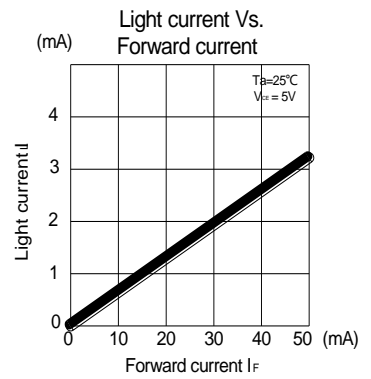
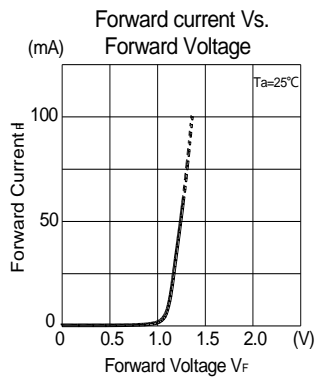
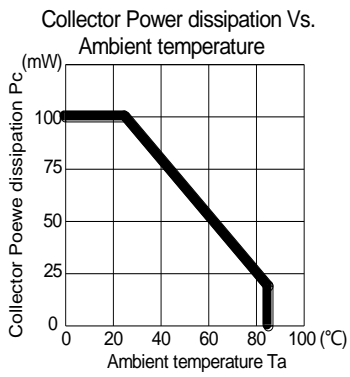
* 2.For Max 5 seconds at the position of 1mm from the resin edge

Electro-Optical Characteristics

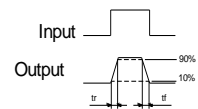
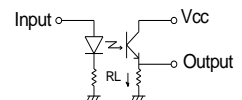
Item		Symbol	Conditions	Min	Typ	Max	Unit
Input	Forward voltage	V_F	$I_F=20mA$	-	1.2	1.4	V
	Reverse current	I_R	$V_R=5V$	-	-	10	μA
	Peak wavelength	λ_p	$I_F=20mA$	-	940	-	nm
Output	Dark current	I_{CEO}	$V_{CE}=10V, E_V=0lx$	-	1	100	nA
	Peak SENS,Wavelength	λ_p	-	-	880	-	nm
Transfer characteristics	Light current	I_C	$I_F=20mA, V_{CE}=5V, \text{入光状态 (Non-shading)}$	0.2	-	10	mA
	Leak current	I_{CEOD}	$I_F=20mA, V_{CE}=5V, \text{遮光状态 (Shading)}$	-	0.5	10	μA
	C-E sat.voltage	$V_{CE (sat)}$	$I_F=20mA, I_C=0.1mA$	-	0.15	0.4	V
	Rise time	t_r	$I_C=2mA, V_{CC}=5V, R_L=100\Omega$	-	4	-	μs
	Fall time	t_f	$I_C=2mA, V_{CC}=5V, R_L=100\Omega$	-	5	-	μs

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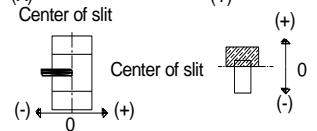
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*1 Switching time measurement circuit

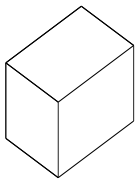


*1 Switching time measurement circuit (X)

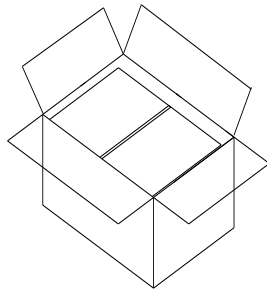


Packing Specification

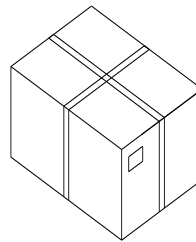
- 1.Fixed quantity (Max 500pcs) of the products are packed into plastic bags
- 2.Ten bags of the products are put into #2 Box(Max 5000pcs)
3. Two #2 Boxes are put into #3 Boxes
- 4.Paste packing slit



2个#2箱



1个#3箱



lit

