

# SIT401P

## Photo Interrupter

The SIT401P is photointerrupter with high-performance standard type, combines high-output GaAs IRED with high sensitive phototransistor.

### Features

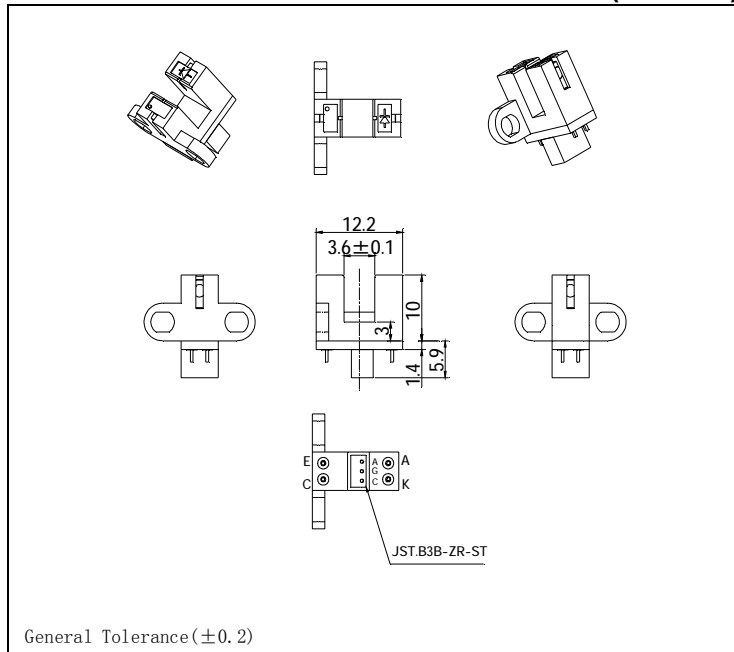
- GAP:3.6 mm
- Double-sided screw-mount

### Applications

- Facsimilies
- Printers
- Auto stampers
- Ticket vending machines

### 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
	Pulse forward current *1	$I_{FP}$	1	A
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		Topr.	-20 ~ +85	°C
Storage temperature *2		Tstg.	-30 ~ +85	°C
Soldering temperature *3		Tsol.	260	°C

\*1 pulse width:  $t_w \leq 100\mu s$  period:  $T=10ms$

\*2 No icebound or dew. \*3. For MAX.5 seconds at the position of 1mm from the package

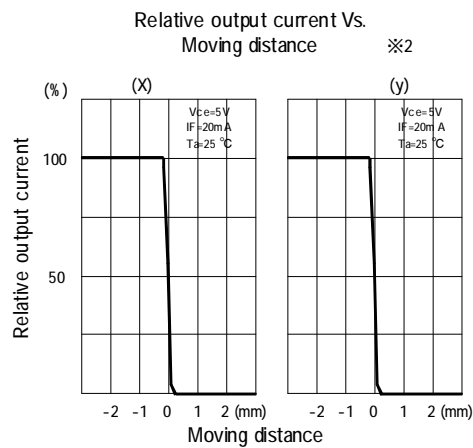
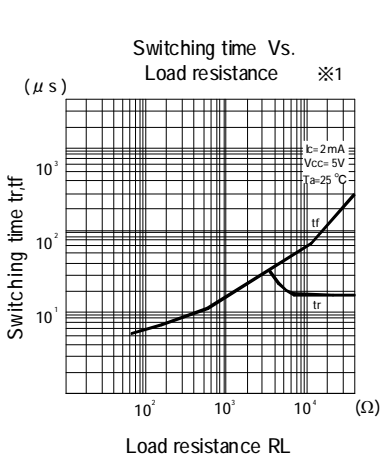
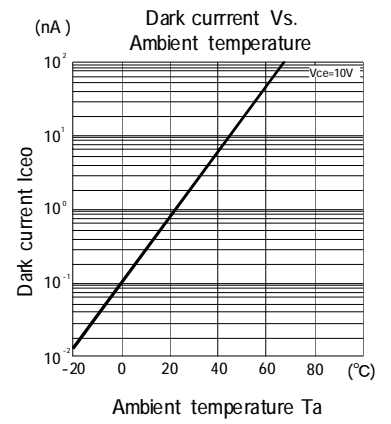
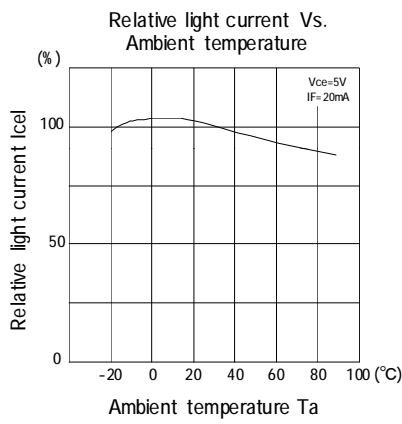
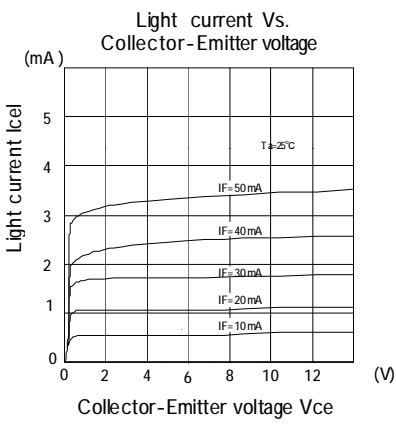
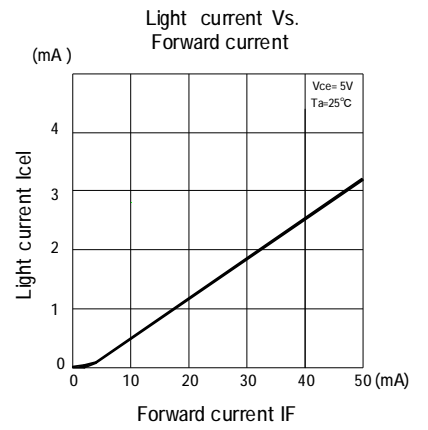
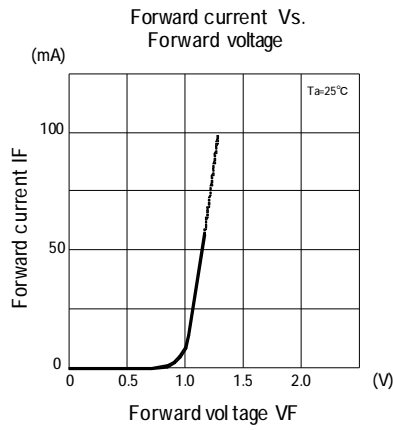
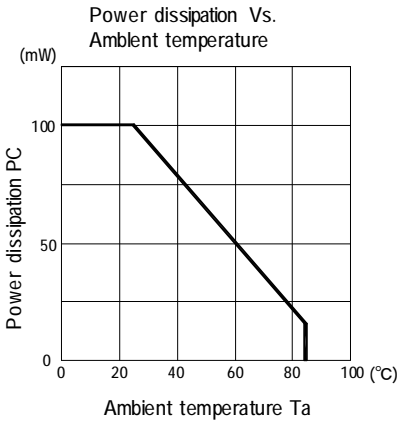
### Electro-Optical Characteristics

(Ta=25°C)

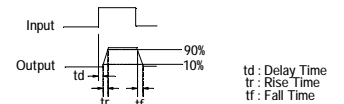
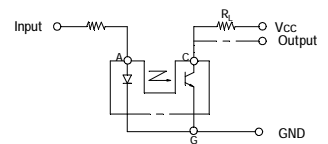
Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage	$V_F$	$I_F=20mA$	-	1.2	1.4	V
	Reverse current	$I_R$	$V_R=5V$	-	-	10	$\mu A$
	Peak wavelength	$\lambda_p$	$I_F=20mA$	-	940	-	nm
Output	Collector dark current	$I_{CEO}$	$V_{CE}=10V$ $E_v=0$ lx	-	1	100	nA
Transfer characteristics	Light current	$I_C$	$I_F=20mA, V_{CE}=5V$ (Non-shading)	0.5	-	10	mA
	Leakage current	$I_{CEOD}$	$I_F=20mA, V_{CE}=5V$ (shading)	-	0.5	10	$\mu A$
	C-E sat.voltage	$V_{CE(sat)}$	$I_F=20mA$ $I_C=0.2mA$	-	0.15	0.4	V
Rise time		$t_r$	$V_{CC}=5V, I_C=2mA, R_L=100\Omega$	-	4	-	$\mu sec.$
Fall time		$t_f$		-	5	-	$\mu sec.$

# Photo Interrupter(Transmissive)

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**\*1 Switching time measurement circuit**



**\*2 Method of measuring position detection characteristic**

