

SIT401P

Photo Interrupter

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

Features

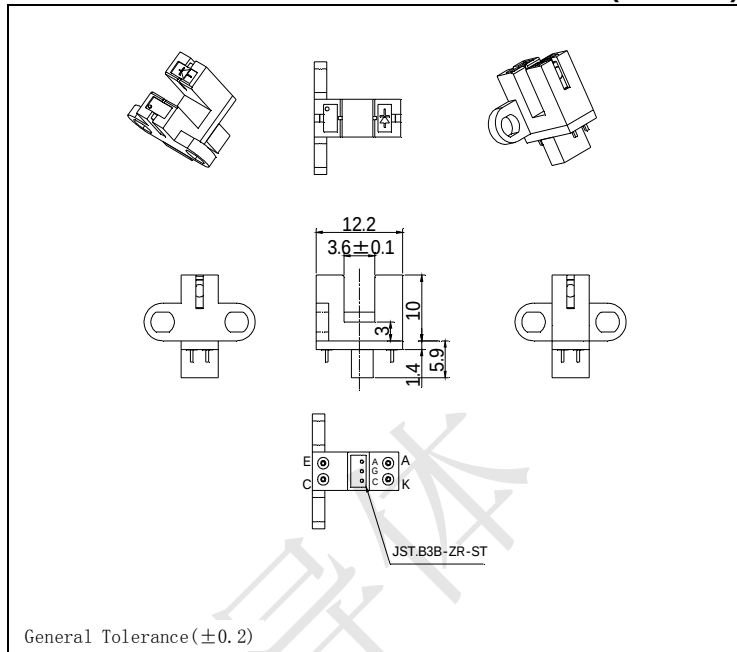
- GAP:3.6 mm
- Double-sided screw-mount

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		$T_{opr.}$	-20 ~ +85	°C
Storage temperature *2		$T_{stg.}$	-30 ~ +85	°C
Soldering temperature *3		$T_{sol.}$	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

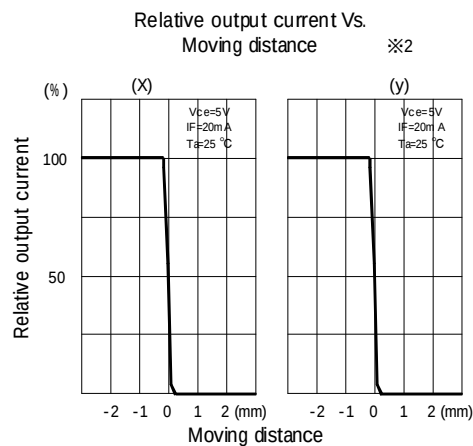
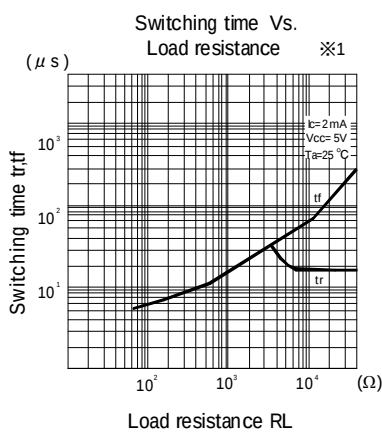
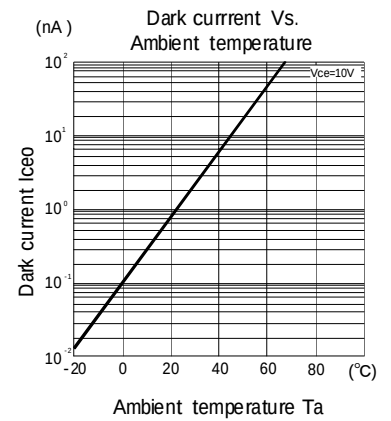
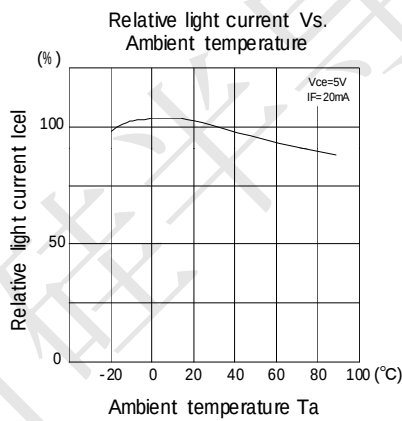
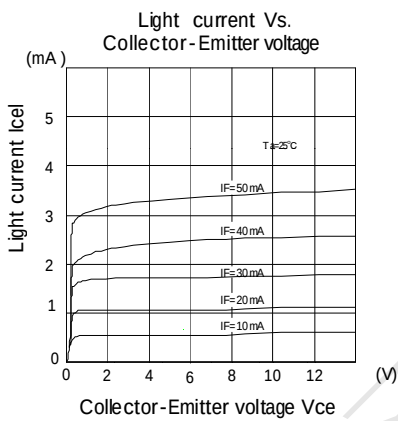
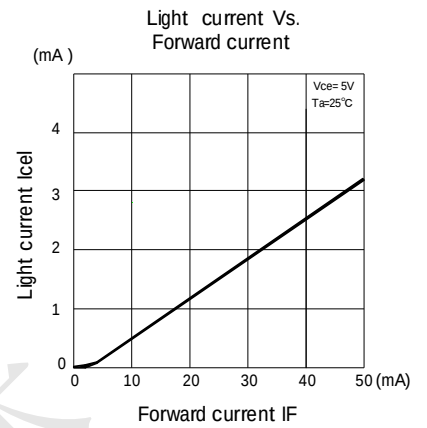
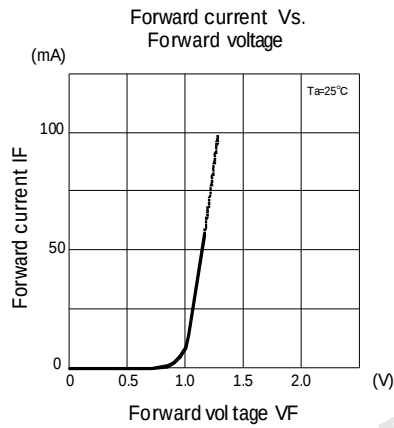
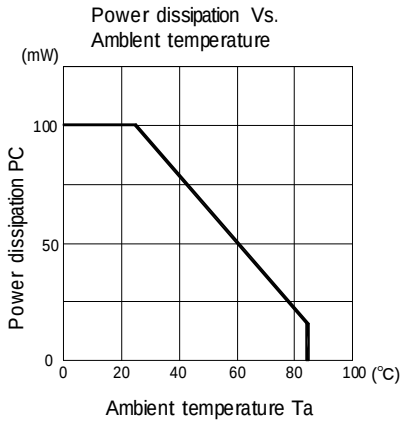
Electro-Optical Characteristics

(Ta=25°C)

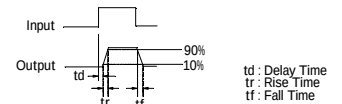
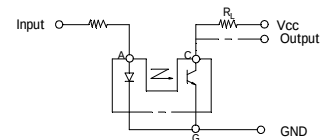
Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage	V_F	$I_F=20mA$	-	1.2	1.4	V
	Reverse current	I_R	$V_R=5V$	-	-	10	μA
	Peak wavelength	λ_p	$I_F=20mA$	-	940	-	nm
Output	Collector dark current	I_{CEO}	$V_{CE}=10V$ $E_v=0$ lx	-	1	100	nA
Transfer characteristics	Light current	I_C	$I_F=20mA, V_{CE}=5V$ (Non-shading)	0.5	-	10	mA
	Leakage current	I_{CEOD}	$I_F=20mA, V_{CE}=5V$ (shading)	-	0.5	10	μA
	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

