

SIT514 Photo Interrupter

The SIT514 is a photointerrupter high-performance standard type, combines high-output GaAs IRED with high sensitive phototransistor.

Features

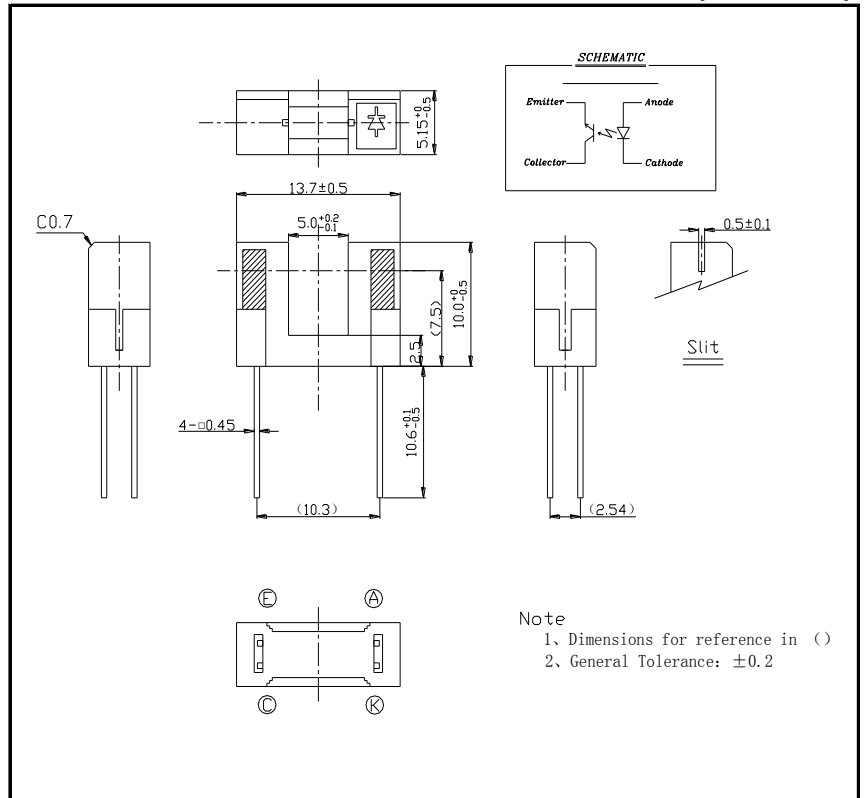
- PCB direct mount type
- GAP:5mm
- RoHS Compliance

Applications

- CD changers
- Reel rotation detection
- VTR
- Amusement machines

Dimensions

(Unit: mm)



MAXIMUM RATINGS

(Ta=25°C)

Item		Symbol	Ratings	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 *2		$T_{opr.}$	-20~+100	°C
Storage Temperature *2		$T_{stg.}$	-20~+100	°C
Soldering Temperature *3		$T_{sol.}$	260	°C

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

*2 : No icebond or dew.

*3 : The soldering should be 1mm away from bottom of the holder t = within 5sec.

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
Transmission	Light current	I_C	$I_F=20\text{mA}, V_{CE}=5\text{V}, \text{Non-shading}$	1	-	5	mA
	Leak current	I_{CEOD}	$I_F=20\text{mA}, V_{CE}=5\text{V}, \text{Shading}$	-	0.5	10	μA
	C-E saturation 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

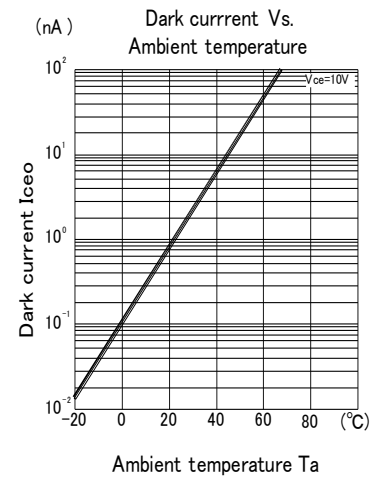
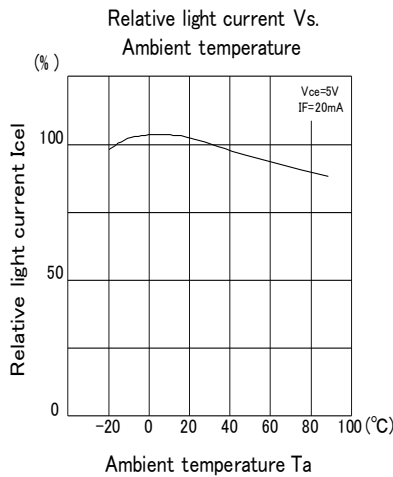
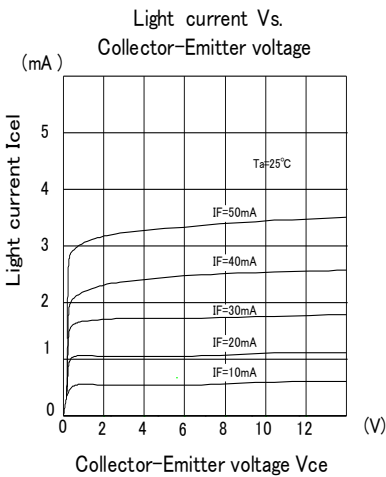
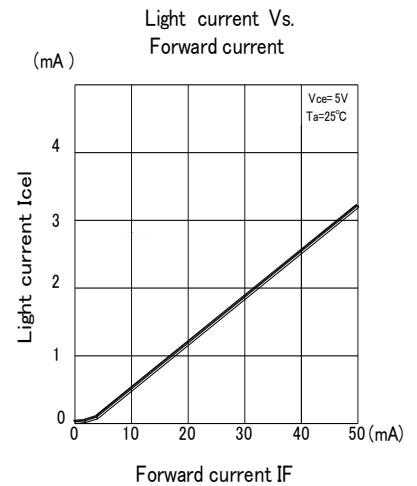
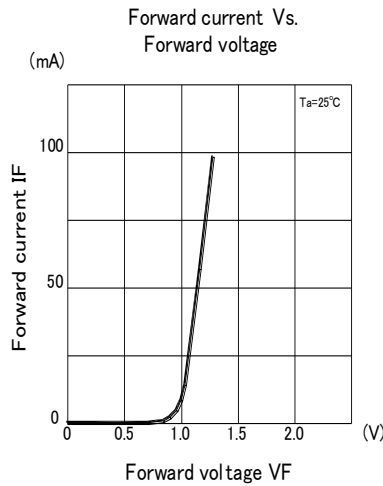
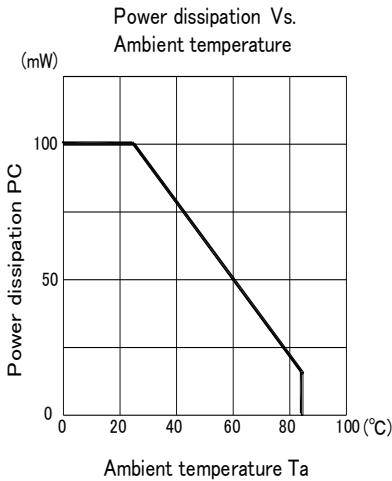
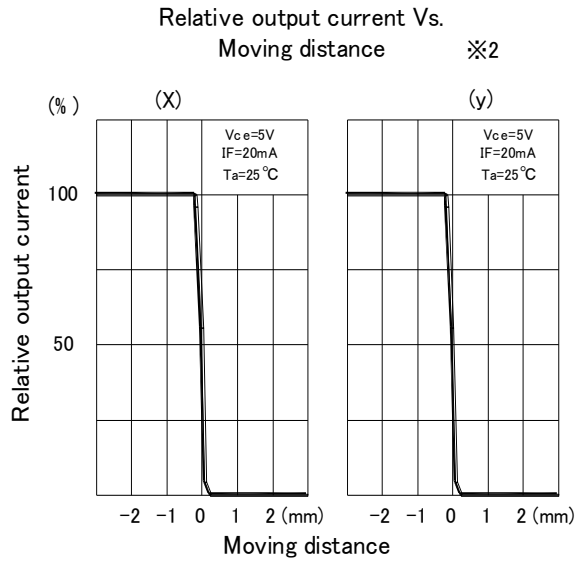
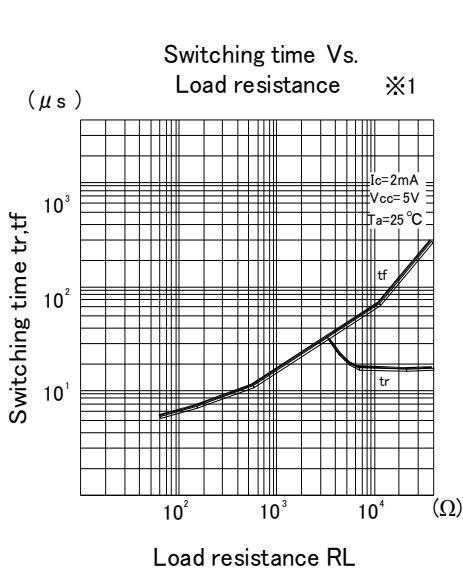
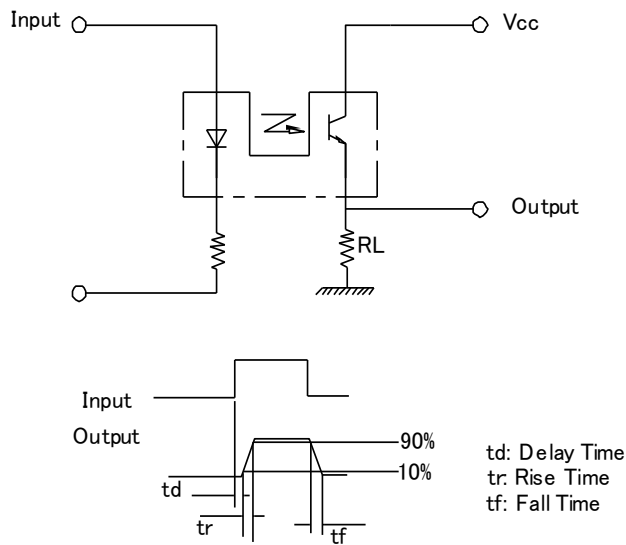


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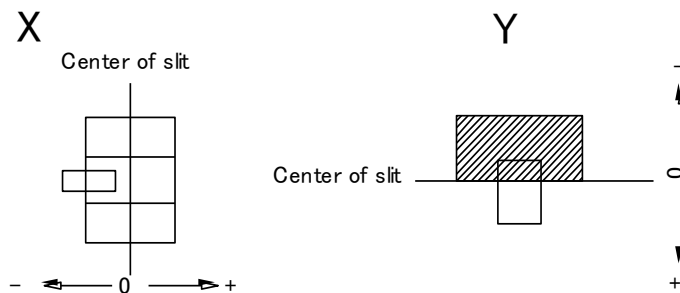
SIT514



*1 Switching time measurement circuit



*2 Method of measuring position detection characteristic



The contents of this data sheet are subject to change without advance notice for the purpose of improvement.

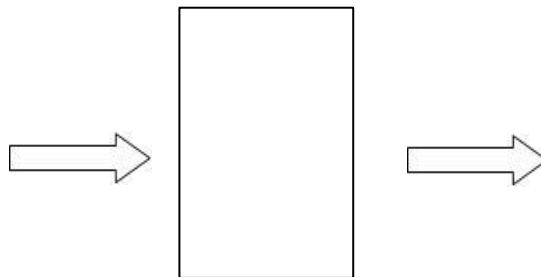
When using this product, would you please refer to the latest specifications.

Packing Specification

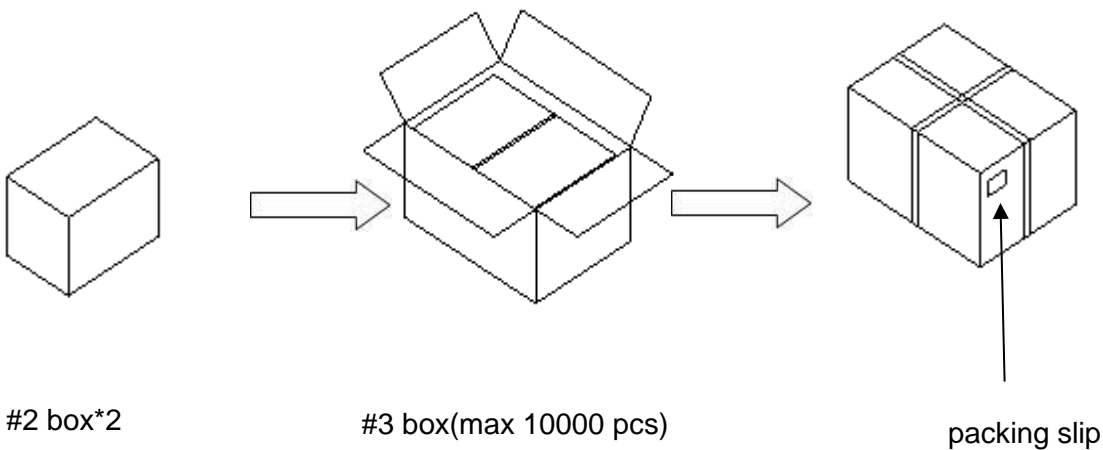
- 1.Fixed quantity (max 1000pcs) of the products are packed into plastic bag
- 2.Five bags of the products are put into #2 box(max 5000pcs)
- 3.Two #2 boxes are put into #3 box(max 10000pcs)
- 4.Packing slip is pasted on #3 box



SIT514 (max 1000pcs)



plastic bag *5



#2 box*2

#3 box(max 10000 pcs)

packing slip