

SIT514

Photo Interrupter

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

Features

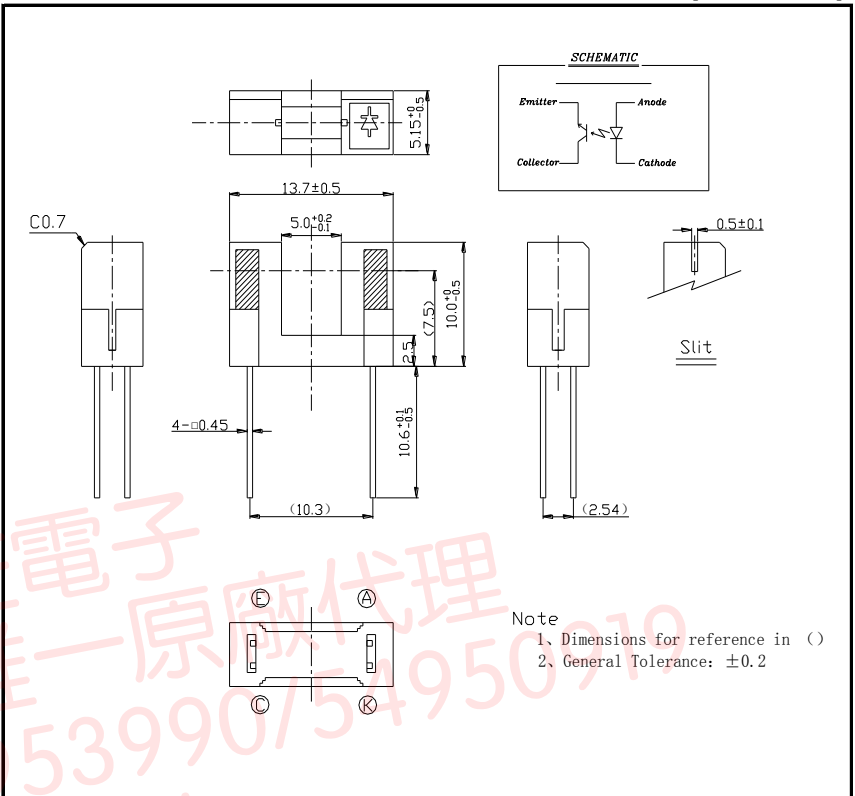
- PCB direct mount type
- GAP:5mm
- RoHS Compliance

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
	Forward current	I_F	60
	Reverse voltage	V_R	5
	Pulse Forward Current *1	I_{FP}	1
Output	Collector power dissipation	P_C	100
	Collector current	I_C	40
	Collector-Emitter Voltage	V_{CEO}	30
	Emitter-Collector voltage	V_{ECO}	5
Operating Temperature *2		$T_{opr.}$	-20~+100
Storage Temperature *2		$T_{stg.}$	-20~+100
Soldering Temperature *3		$T_{sol.}$	260

*1 : Pulse width (tw) $\leq 100\mu s$, 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
Trans mission	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

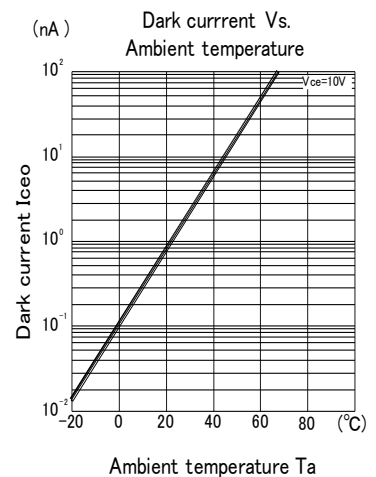
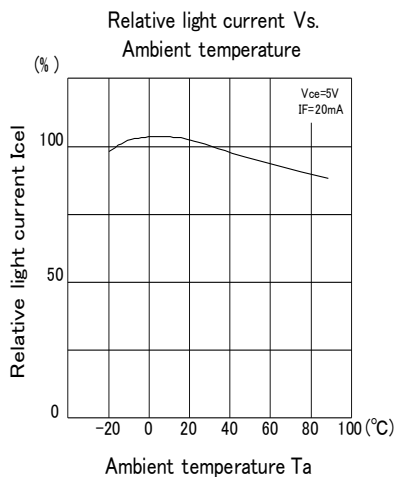
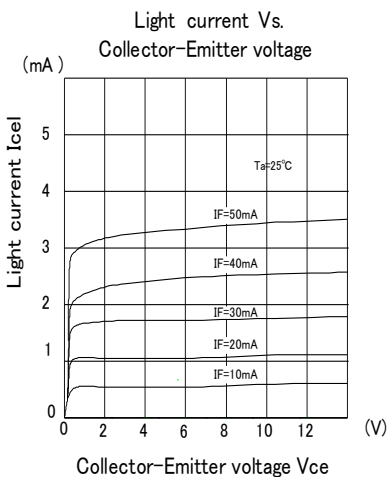
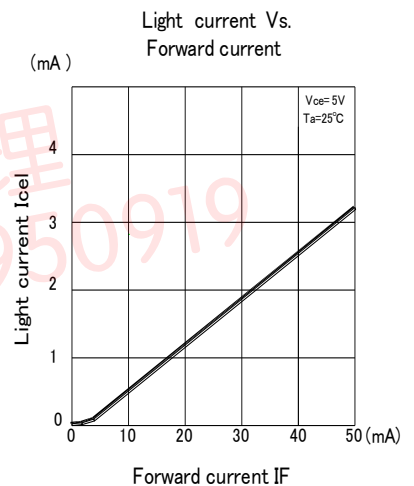
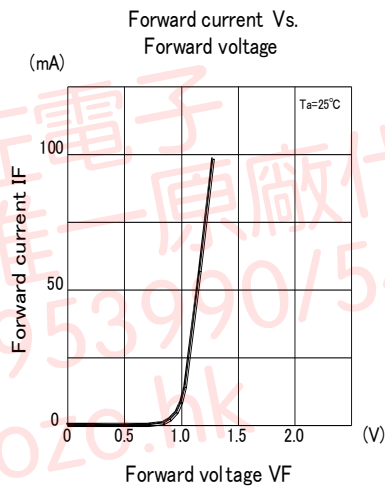
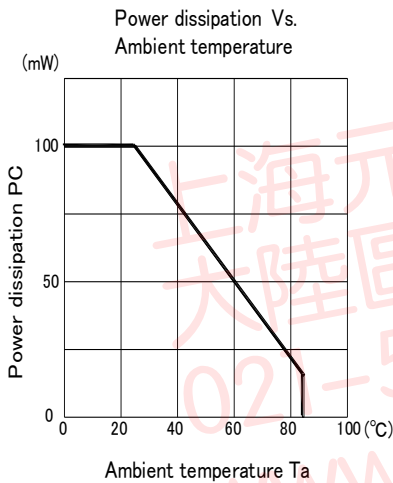
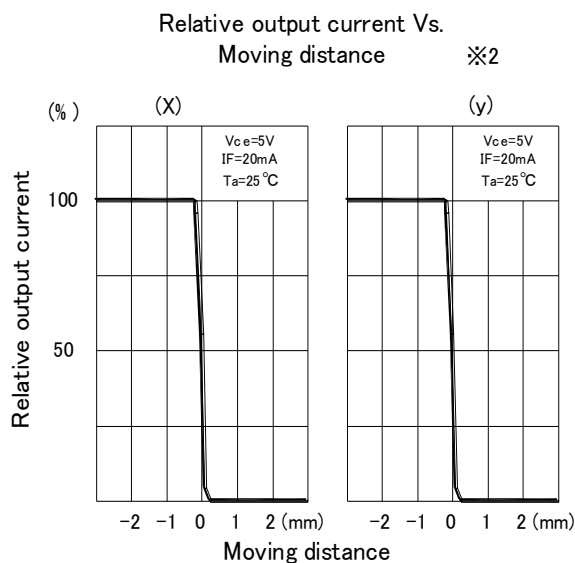
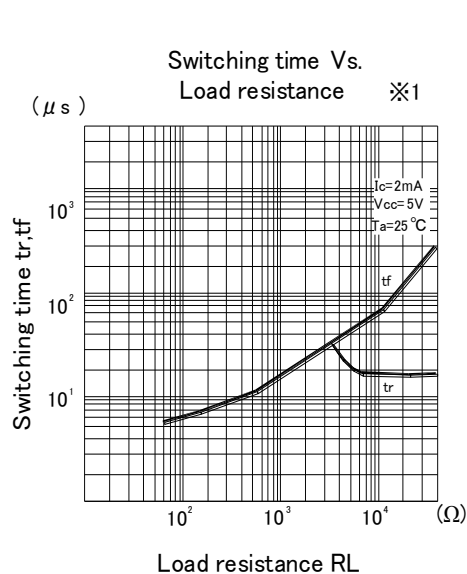
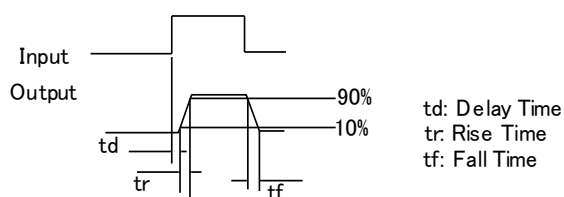
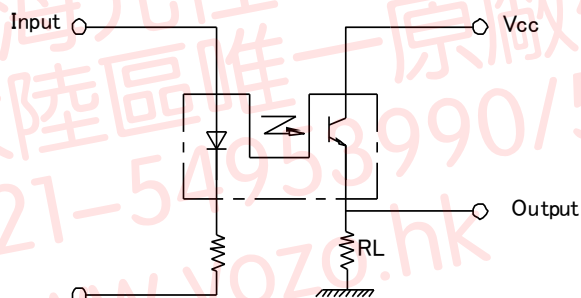


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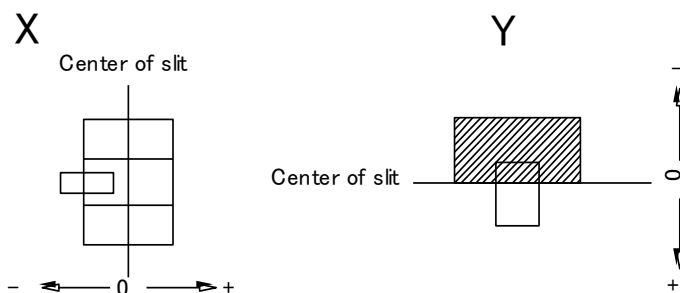
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※1 Switching time measurement circuit



※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.