

# SIT313 Photo Interrupter

The SIT313 is a photointerrupter high-performance standard type, combines high-output GaAs IRED with high sensitive phototransistor.

### Features

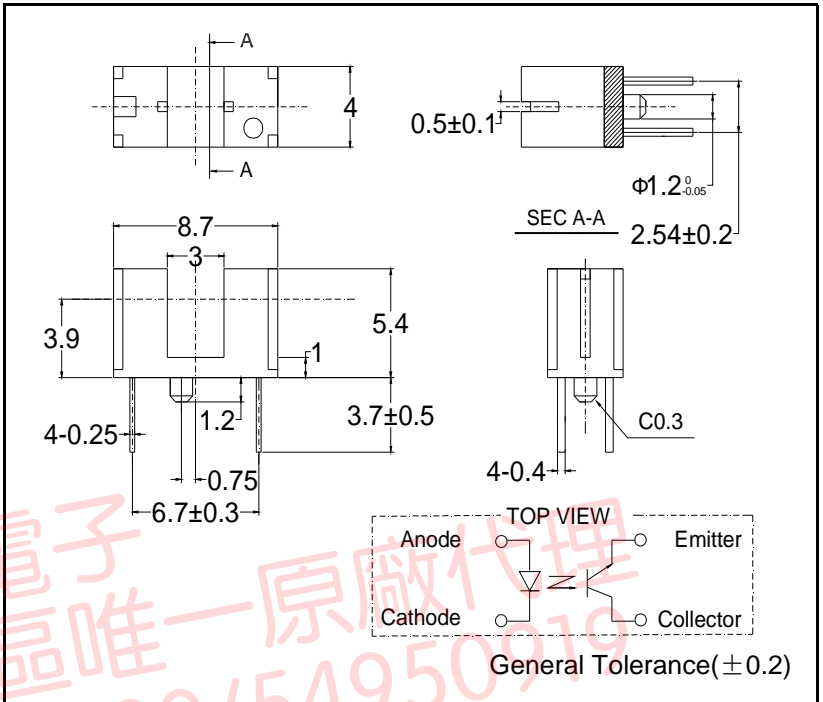
- PWB direct mount type
- GAP : 3.0mm
- With the installation positioning boss
- Compact /High performance
- RoHS compliance

### Applications

- VTR
- Printers
- Copiers

### Dimensions

(Unit: mm)



### Absolute Maximum Ratings

(Ta= 25°C)

Item	Symbol	Rating	Unit	
Input	Power dissipation	$P_D$	75	mW
	Forward current	$I_F$	50	mA
	Reverse voltage	$V_R$	5	V
Output	Collector power dissipation	$P_C$	75	mW
	Collector current	$I_C$	20	mA
	Collector-Emitter voltage	$V_{CEO}$	30	V
	Emitter-Collector voltage	$V_{ECO}$	5	V
Operating temp.	Topr.	-20~+85	°C	
Storage temp.	Tstg.	-30~+85	°C	
Soldering temp. *1	Tsol.	260	°C	

\*1. The soldering should be 1mm away from bottom of the holder t=within 5s

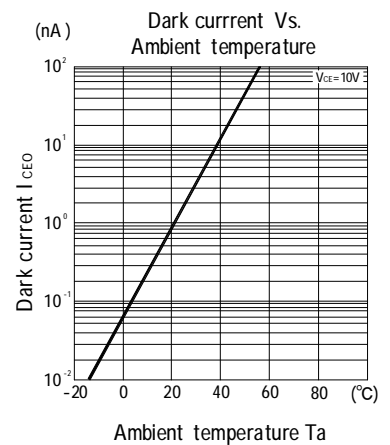
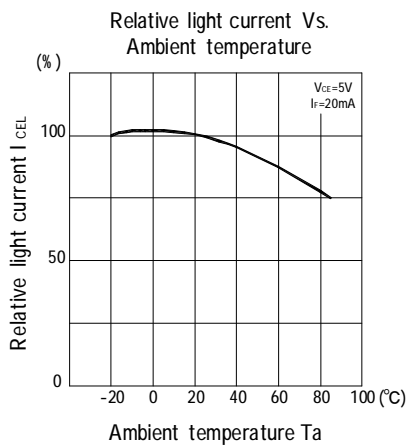
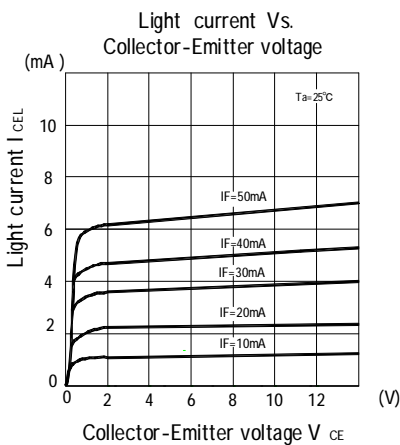
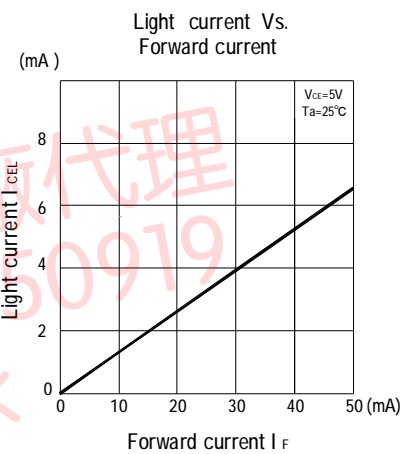
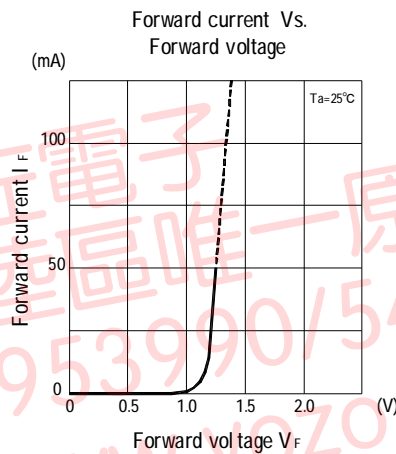
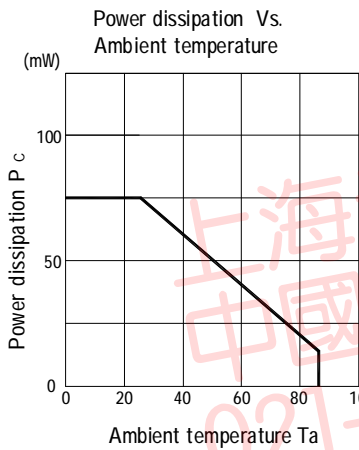
# Photo Interrupter(Transmissive)

## SIT313

### Electro- Optical Characteristics

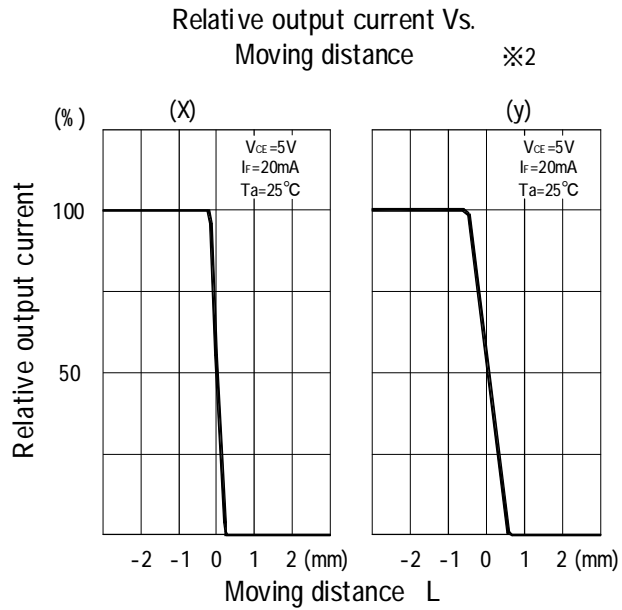
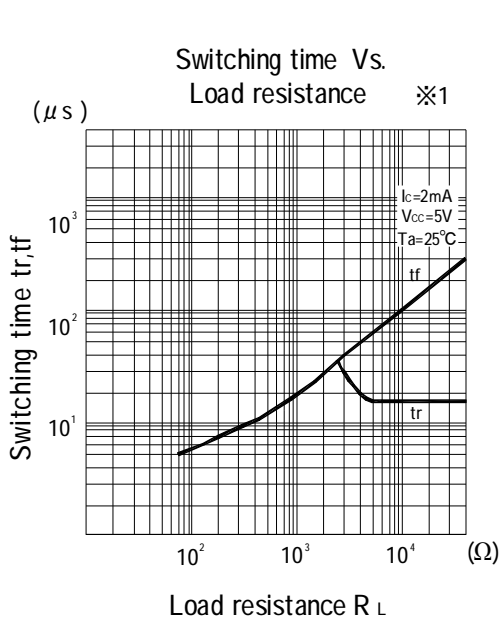
(Ta= 25°C )

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	$\mu\text{A}$
	Peak wavelength	$\lambda_P$	$I_F=20\text{mA}$	-	940	-	nm
Output	Collector dark current	$I_{CEO}$	$V_{CE}=10\text{V}, 0\text{ lx}$	-	-	0.1	$\mu\text{A}$
Transmission	Collector current	$I_C$	$V_{CE}=5\text{V}, I_F=20\text{mA}$ (Non-shaded)	0.7	-	14	mA
	Leakage current	$I_{CEOD}$	$V_{CE}=5\text{V}, I_F=20\text{mA}$ (shaded)	-	0.5	10	$\mu\text{A}$
	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	$V_{CC}=5\text{V}, I_C=0.5\text{mA}$	-	10	-	$\mu\text{s}$
	Fall time	tf	$R_L=100\ \Omega$	-	15	-	$\mu\text{s}$

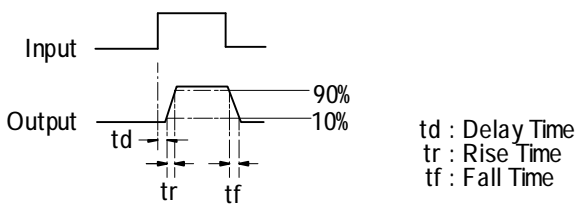
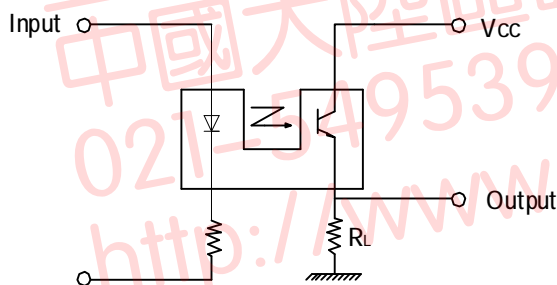


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### \*1 Switching time measurement circuit



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

