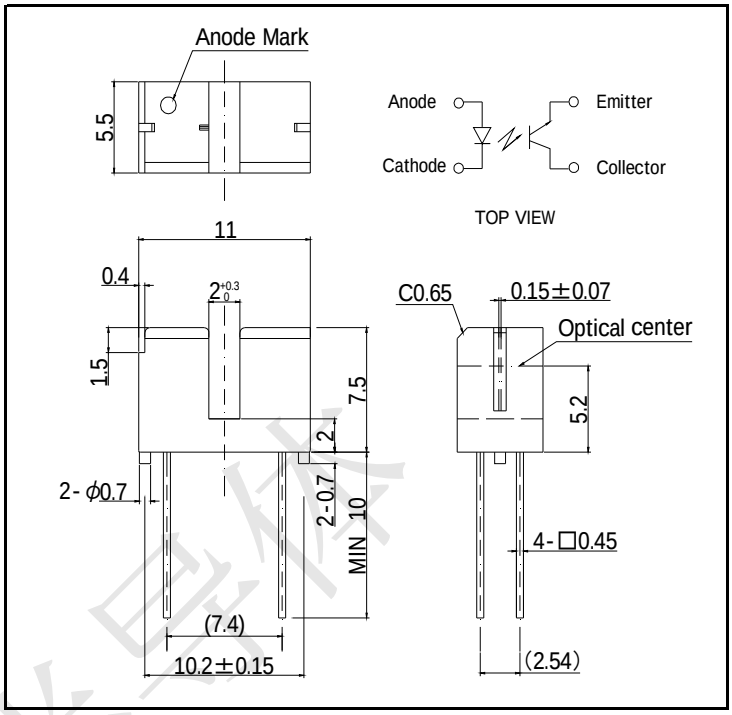
KODENSHI AUK

SIT207
Photo Interrupter

The SIT207 is a photointerrupter high-performance standard type, combines high-output GaAs IRED with high sensitive phototransistor.

DIMENSIONS

Unit:mm



Features

·PCB direct mount type
·GAP:2.0mm
·With the installation positioning boss
·High resolution(slit 0.15mm)

Application

·Printers
·Encoders
·Scanners
·Electronic measurement machine

Maximum Ratings

(Ta=25℃)

Item		Symbol	Ratings	Unit
Input	Power dissipation	P_D	100	mW
	Forward current	I_F	60	mA
	Reverse voltage	V_R	5	V
Output	Collector power dissipation	P_C	100	mW
	Collector current	I_C	40	mA
	Collector-Emiter voltage	V_{CEO}	30	V
	Emiter-Collector voltage	V_{ECO}	5	V
Operating temperature		Topr.	-20～+85	°C
Storage tempertature		Tstg.	-30～+85	°C
Soldering tempertature *1		Tsol.	260	°C

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

Elector-Optical Characteristics

(Ta=25℃)

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	Dark current	I_{CEO}	V_{CE}=10V,E_V=0lx	-	1	100	nA
Transfer characteristics	Light current	I_C	I_F=20mA,V_{CE}=5V,Non-shading	0.4	-	10	mA
	Leak current	I_{CEOD}	I_F=20mA,V_{CE}=5V,Shading	-	0.5	10	μA
	C-E saturation voltage	V_{CE}（sat）	I_F=20mA,I_C=0.1mA	-	0.15	0.4	V
	Rise time	tr	I_C=2mA,V_{CC}=5V,R_L=100KΩ	-	4	-	μs
	Fall time	tf		-	5	-	μs

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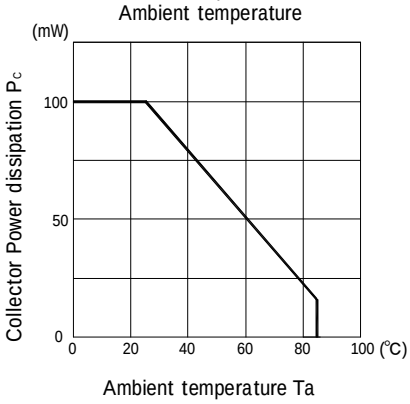
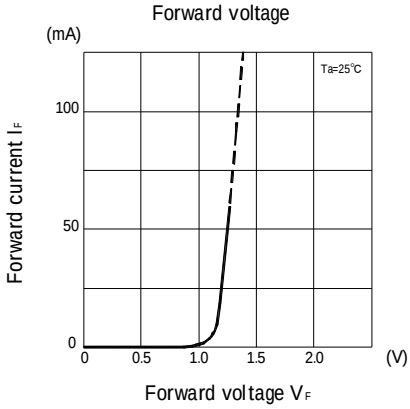
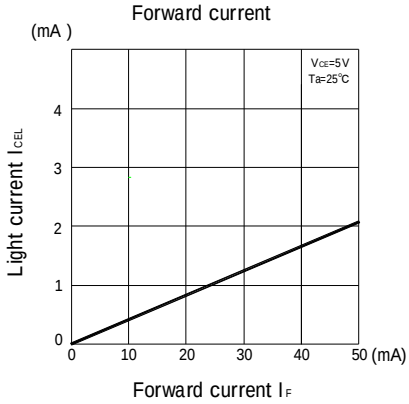
Power dissipation Vs.
Ambient temperature



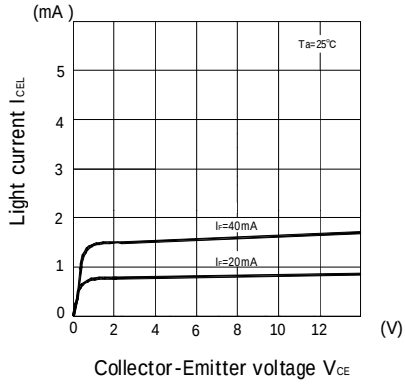
Forward current Vs.
Forward voltage



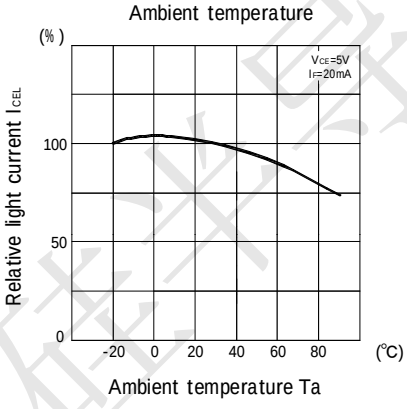
Light current Vs.
Forward current



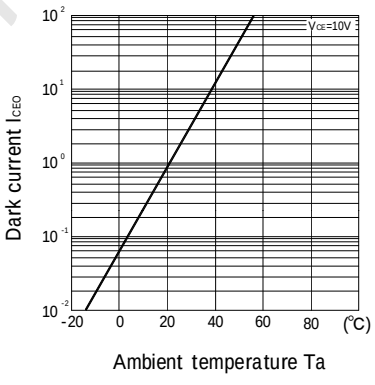
Light current Vs.
Collector-Emitter voltage



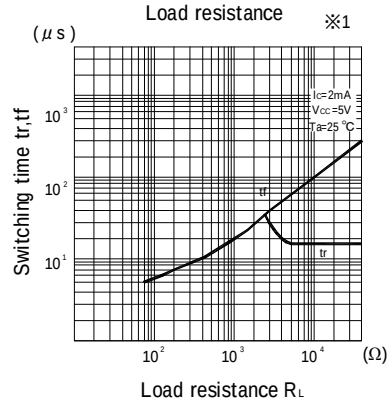
Relative light current Vs.
Ambient temperature



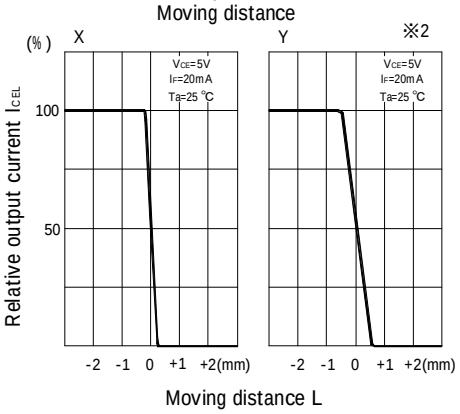
Dark currrent Vs.
Ambient temperature



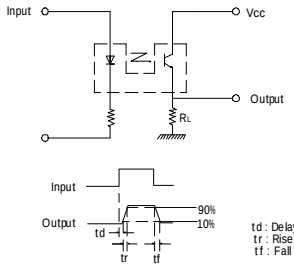
Switching time Vs.
Load resistance



Relative output current Vs.
Moving distance



*1 Switching time measurement circuit



*2 Method of measuring position detection characteristic