

Photointerrupters(Transmissive)

KODENSHI

SG - 264

The SG - 264 photointerrupter high - performance standard type,combines high - output GaAs IRED with high sensitive phototransistor.

FEATURES

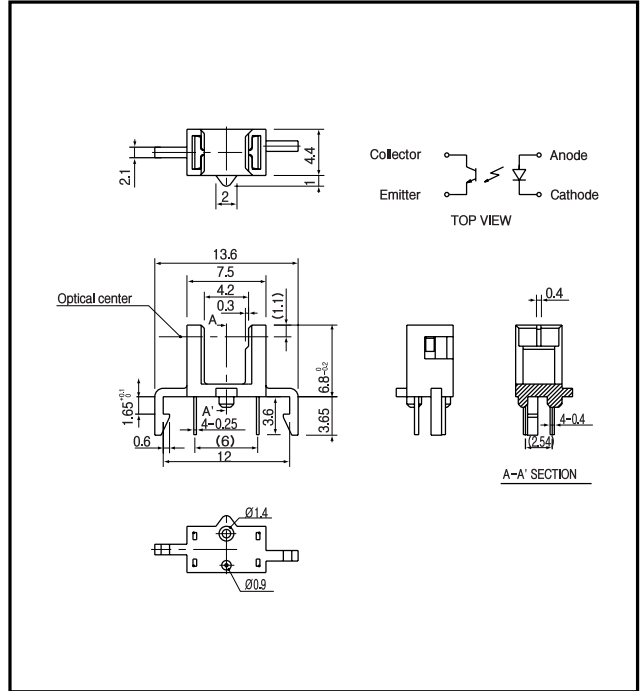
- PWB direct mount type
- GAP : 4.2mm
- Snap- in mount
- With the installation positioning boss

APPLICATIONS

- Cassette mecha
- Facsimiles
- CD changers
- VTR

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25 )

Item	Symbol	Rating	Unit	
Input	Power dissipation	P <sub>D</sub>	75	mW
	Forward current	I <sub>F</sub>	50	mA
	Reverse voltage	V <sub>R</sub>	5	V
	Pulse forward current *1	I <sub>FP</sub>	0.5	A
Output	Collector power dissipation	P <sub>C</sub>	75	mW
	Collector current	I <sub>C</sub>	20	mA
	C - E voltage	V <sub>CEO</sub>	30	V
	E - C voltage	V <sub>ECO</sub>	5	V
Operating temp.*2	T <sub>opr.</sub>	- 20 ~ +85		
Storage temp.*2	T <sub>stg.</sub>	- 30 ~ +100		
Soldering temp.*3	T <sub>sol.</sub>	260		

\*1. pulse width : t w 100 ꝑec.period : T=10msec.

\*2. No icebound or dew

\*3. For MAX.5 seconds at the position of 1mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

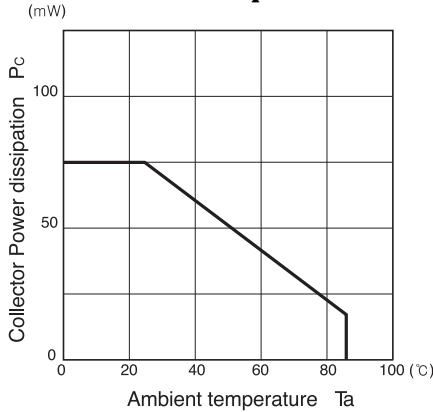
(Ta=25 )

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Input	Forward voltage	I <sub>F</sub> = 20mA		1.2	1.4	V
	Reverse current	V <sub>R</sub> = 5V			10	ꝑA
	Peak wavelength	I <sub>F</sub> = 20mA		940		nm
Output	Collector dark current	V <sub>CE</sub> = 10V		1	100	nA
Transmissi	Light current	I <sub>F</sub> = 20mA, V <sub>CE</sub> = 5V, Non - shading	0.2		5	mA
	leakage current	I <sub>F</sub> = 20mA, V <sub>E</sub> = 5V(shading)		0.5	10	ꝑA
	C - E saturation voltage	V <sub>CE(sat)</sub> I <sub>F</sub> = 20mA, I <sub>C</sub> = 0.05mA		0.15	0.4	V
Rise time	t <sub>r</sub>	V <sub>CC</sub> = 5V, I <sub>C</sub> = 0.1 mA, R = 1K		50		ꝑsec.
Fall time	t <sub>f</sub>			50		ꝑsec.

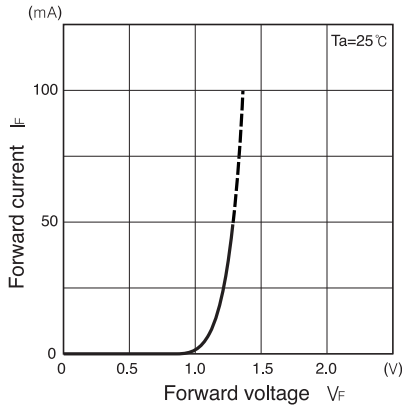
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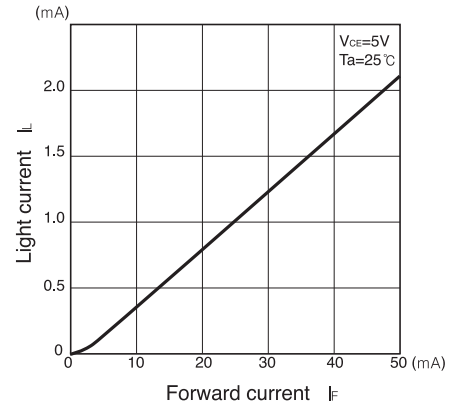
**Collector power dissipation Vs. Ambient temperature**



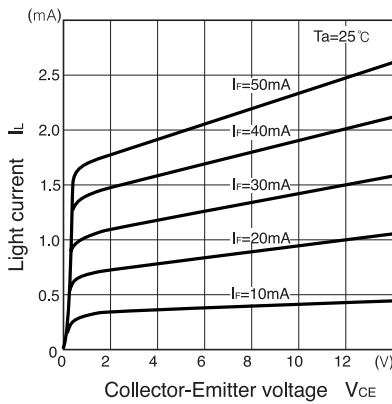
**Forward current Vs. Forward voltage**



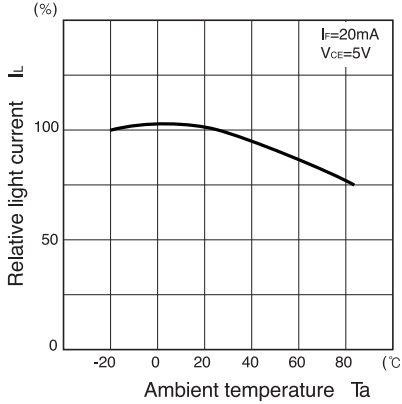
**Light current Vs. Forward current**



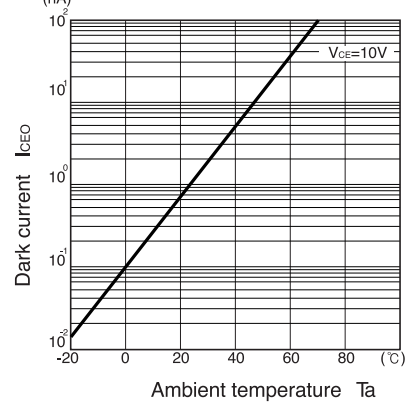
**Light current Vs. Collector-Emitter voltage**



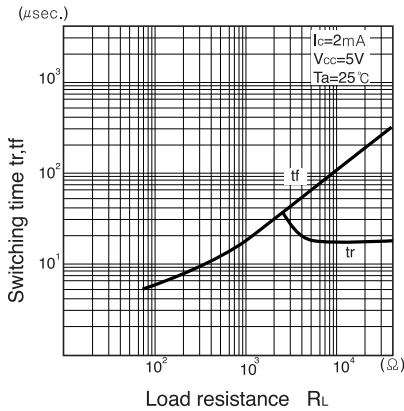
**Relative light current Vs. Ambient temperature**



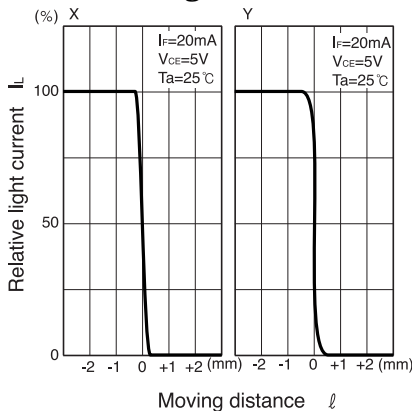
**Dark current vs. Ambient temperature**



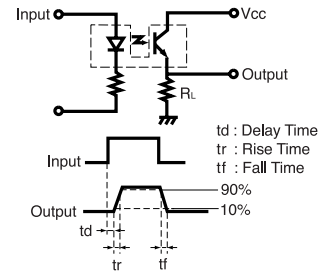
**Switching time Vs. Load resistance**



**Relative light current Vs. Moving distance**



Switching time measurement circuit



Method of measuring position detection characteristic

