

SG - 264

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

**FEATURES**

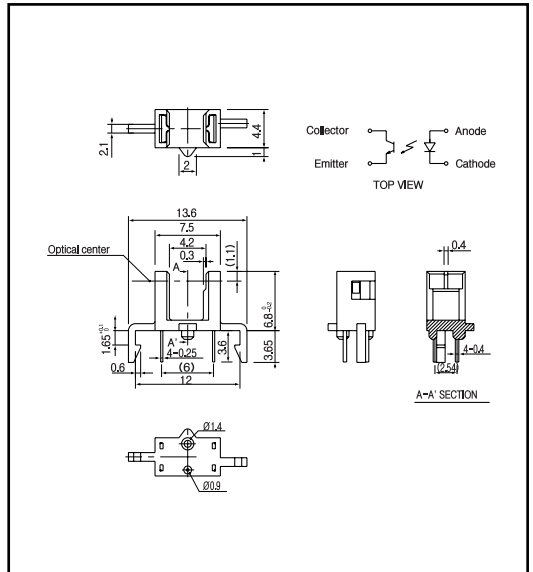
- PWB direct mount type
- GAP : 4.2mm
- Snap– in mount
- With the installation positioning boss

**APPLICATIONS**

- Cassette mecha
- Facsimiles
- CD changers
- VTR

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating	Unit	
Input	Power dissipation	P <sub>b</sub>	75	mW
	Forward current	I <sub>F</sub>	50	mA
	Reverse voltage	V <sub>R</sub>	5	V
	Pulse forward current <sup>*1</sup>	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>ECCO</sub>	5	V
Operating temp. <sup>*2</sup>		T <sub>opr.</sub>	- 20 ~ + 85	
Storage temp. <sup>*2</sup>		T <sub>stg.</sub>	- 30 ~ + 100	
Soldering temp. <sup>*3</sup>		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**

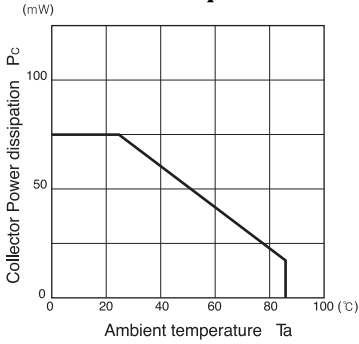
(Ta=25 )

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
	Light current	I <sub>F</sub> =20mA, V <sub>E</sub> =5V, Non – shading	0.2		5	ꝑA
Transmissio	leakage current	I <sub>CEOD</sub>		0.5	10	ꝑA
	C - E saturation voltage	I <sub>F</sub> =20mA, I <sub>c</sub> =0.05mA		0.15	0.4	V
	Rise time	V <sub>CC</sub> =5V, I <sub>b</sub> =0.1mA, R=1K		50		ꝑsec.
	Fall time			50		ꝑsec.

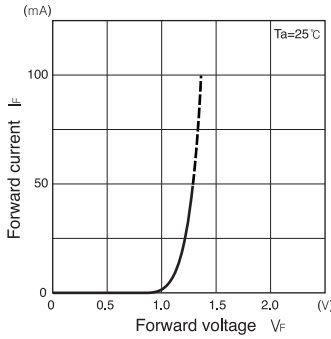
Photointerrupters(Transmissive)

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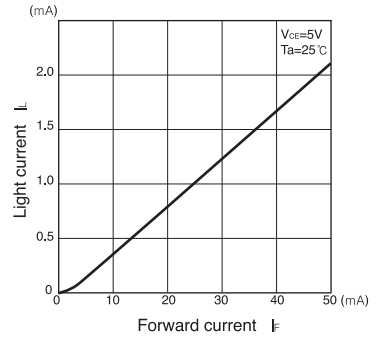
**Collector power dissipation Vs. Ambient temperature**



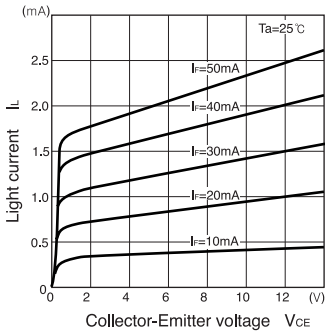
**Forward current Vs. Forward voltage**



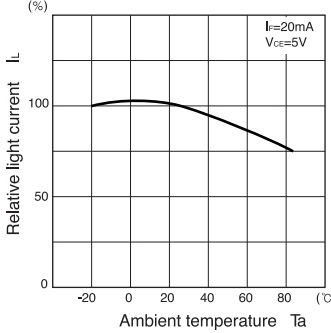
**Light current Vs. Forward current**



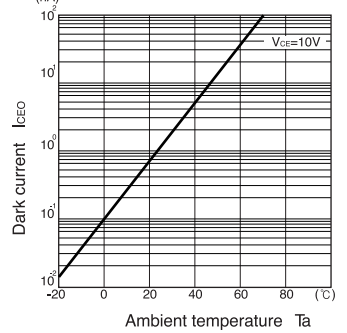
**Light current Vs. Collector-Emitter voltage**



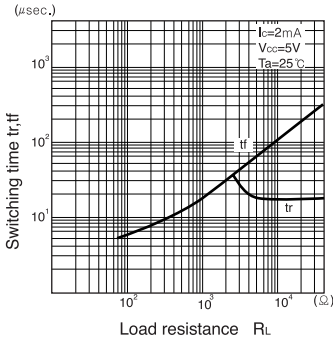
**Relative light current Vs. Ambient temperature**



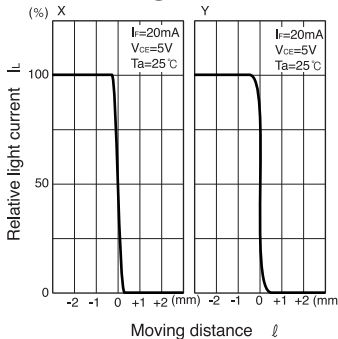
**Dark current vVs. Ambient temperature**



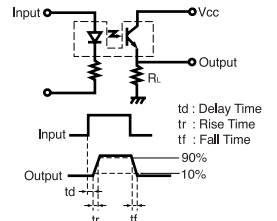
**Switching time Vs. Load resistance**



**Relative light current Vs. Moving distance**



Switching time measurement circuit



Method of measuring position detection characteristic

