

SG 211V

The SG 211V photointerrupter high – performance standard type, combines high – output GaAs IRED with high sensitive phototransistor. Compact size.

FEATURES

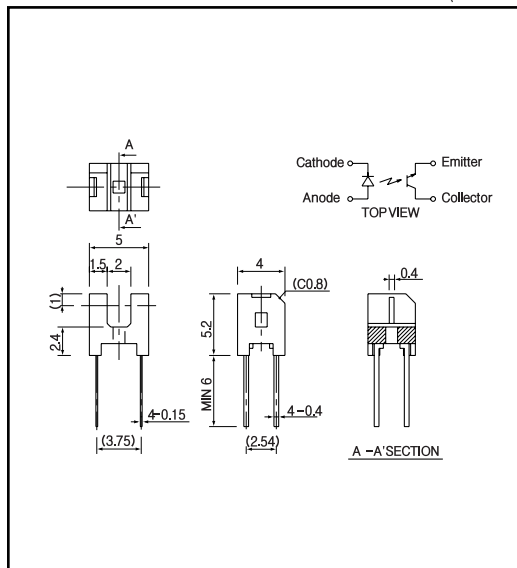
- PWB direct mount type
- GAP : 2.0mm
- Compact
- Low cost

APPLICATIONS

- Floppy disk drives
- CD – ROM drives
- Printers
- Facsimiles
- Cameras

DIMENSIONS

(Unit : mm)



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
	Pulse forward current ^{*1}	I _{FP}	0.5 A
Output	Collector power dissipation	P _C	75 mW
	Collector current	I _C	20 mA
	C - E voltage	V _{CEO}	30 V
	E - C voltage	V _{ECO}	5 V
Operating temp. ^{*2}		T _{opr.}	- 20 ~ + 85 °C
Storage temp. ^{*2}		T _{stg.}	- 30 ~ + 100 °C
Soldering temp. ^{*3}		T _{sol.}	260 °C

*1. t_w ≤ 100 μsec. period : T = 10msec. *2. No icebound or dew

*3. For MAX. 5 seconds at the position of 2mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

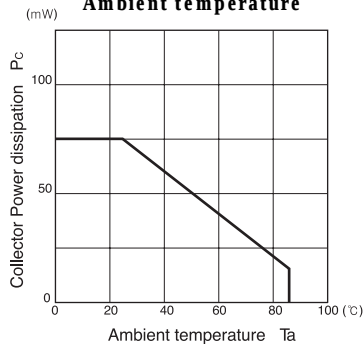
(Ta = 25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Input	Forward voltage	I _F = 20mA		1.2	1.4	V
	Reverse current	V _R = 5V			10	μA
	Peak wavelength	I _F = 20mA		940		nm
Output	Collector dark current	V _{CE} = 10V		1	100	nA
	Light current	I _F = 10mA, V _E = 5V, (Nonshading)	0.25		1.2	mA
Transmissi	beakage current	I _{CEOD}		0.5	10	μA
	C - E saturation voltage	I _F = 10mA, I _C = 0.03mA		0.15	0.4	V
	Rise time	V _{CC} = 5V, I _C = 0.1mA, R = 1kΩ		50	150	μsec.
	Fall time			50	150	μsec.

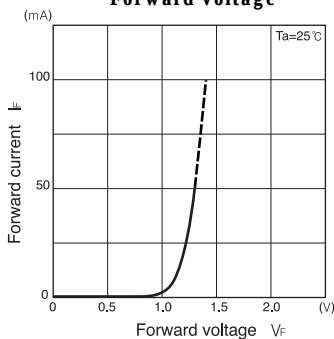
Photo interrupters(Transmissive)

SG 211V

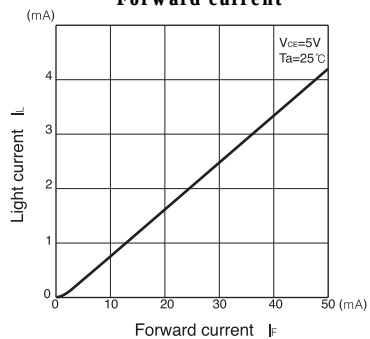
Collector power dissipation Vs. Ambient temperature



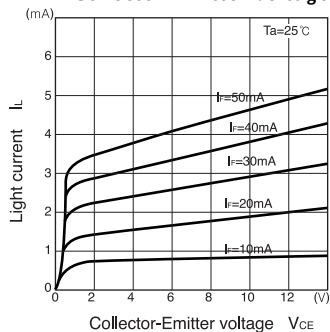
Forward current Vs. Forward voltage



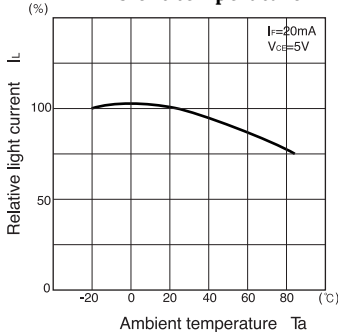
Light current Vs. Forward current



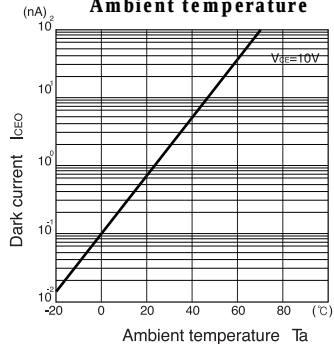
Light current Vs. Collector-Emitter voltage



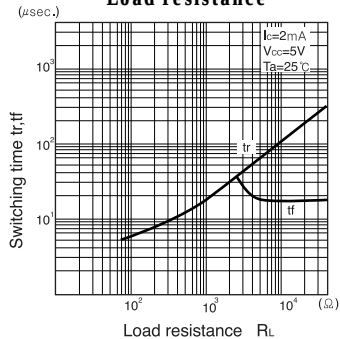
Relative light current Vs. Ambient temperature



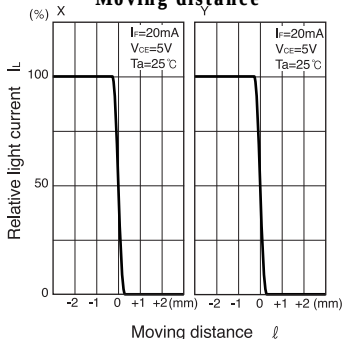
Dark current Vs. Ambient temperature



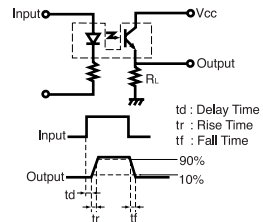
Switching time Vs. Load resistance



Relative light current Vs. Moving distance



Switching time measurement circuit



Method of measuring position detection characteristic

