

SG277

The SG277 photointerrupter high-performance standard type,combines high-output GaAs IRED with high sensitive phototransistor.

FEATURES

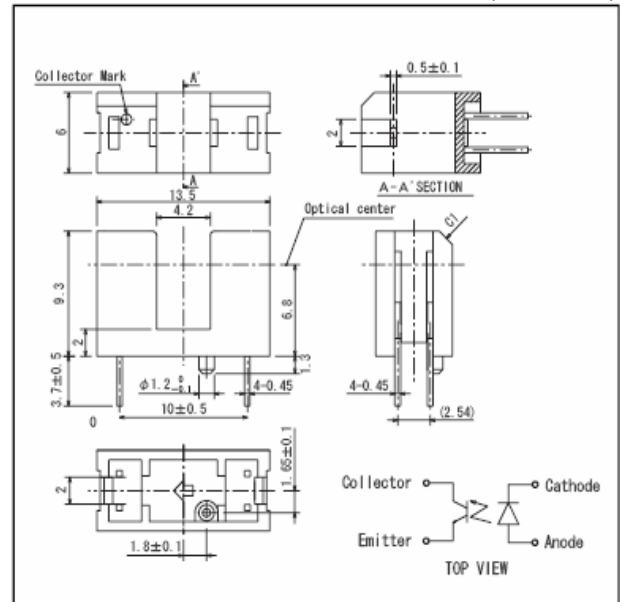
- PWB direct mount type
- GAP : 4.2mm
- With the installation positioning boss
- Low cost

APPLICATIONS

- Facsimiles
- Printers
- Copiers
- Scanners
- Amusement machines

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25°C)

Item		Symbol	Rating	Unit
Input	Power dissipation	P _D	100	mW
	Forward current	I _F	60	mA
	Reverse voltage	V _R	5	V
	Pulse forward current *1	I _{FP}	1	A
Output	Collector power dissipation	P _C	100	mW
	Collector current	I _C	40	mA
	Collector-Emitter voltage	V _{CEO}	30	V
	Emitter-Collector voltage	V _{ECO}	5	V
Operating temp.*2		Topr.	-20 ~ +85	°C
Storage temp.*2		Tstg.	-30 ~ +85	°C
Soldering temp.*3		Tsol.	260	°C

*1. Pulse width : tw≤100us. period T=10ms

*2. No icebound or dew *3. For MAX. 5 seconds at the position of 1mm from the resin edge.

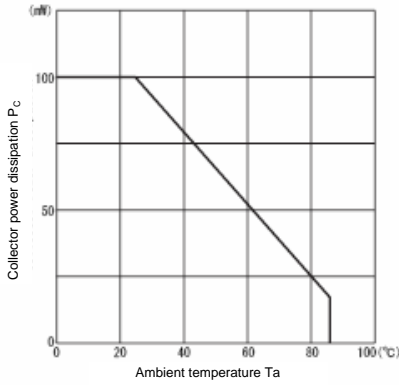
ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25°C)

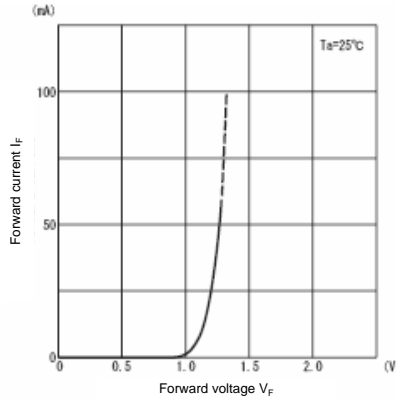
Item		Symbol	Conditions	Min.	Typ.	Max.	Unit.
Input	Forward voltage	V _F	I _F =20mA	-	1.2	1.4	V
	Reverse current	I _R	V _R =5V	-	-	10	μA
	Peak wavelength	λ _p	I _F =20mA	-	940	-	nm
Output	Collector dark current	I _{CEO}	V _{CE} =10V, 0 lx	-	1	100	nA
Transmission	Light current	I _C	I _F =20mA, V _{CE} =5V (Non-Shading)	0.5	-	10	mA
	Leakage 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	V _{CC} =5V, I _C =2mA, R _L =100Ω	-	4	-	μs
Fall time		tf		-	5	-	μs

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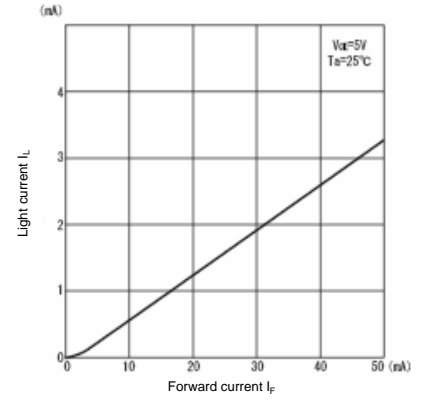
Collector power dissipation Vs. Ambient temperature



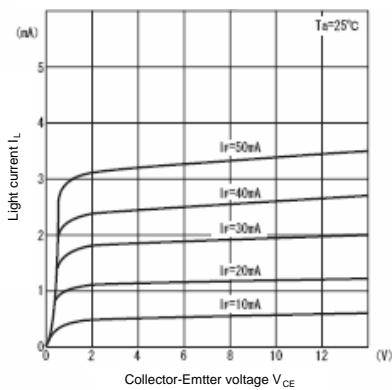
Forward current Vs. Forward voltage



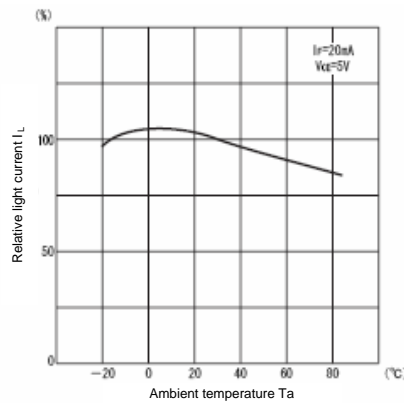
Light current Vs. Forward current



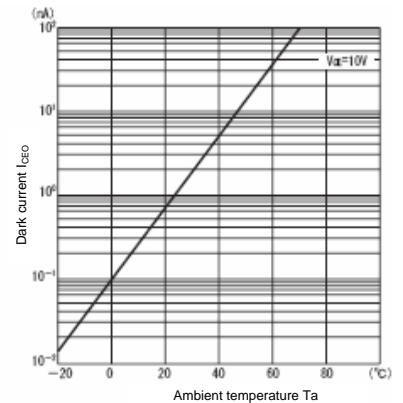
Light current Vs. Collector-Emitter voltage



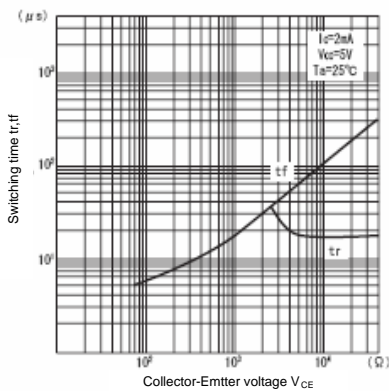
Relative light current Vs. Ambient temperature



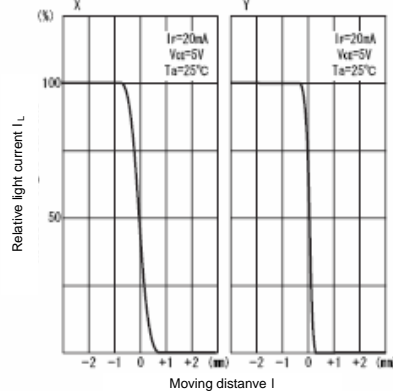
Dark current Vs. Ambient temperature



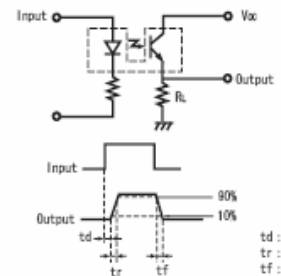
Switching time Vs. Load resistance *1



Relative light current Vs. Moving distance *2



*1 Switching time measurement circuit



*2 Method of measuring position detection characteristic

