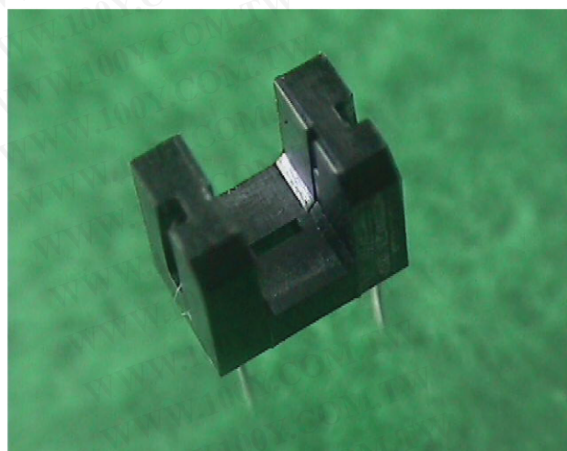


General Description

The FI-233 is Photo-Interrupter high-performance standard type, combines high-output GaAs IRED with high sensitive Photo-transistor

Features

- PWB direct mount type
- GAP:3.0mm
- With the installation positioning boss
- Compact
- Meet RoHS



Applications

- VTR
- Cassette mecha
- Car stereo
- Printers

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
	Collector-Emitter voltage	V _{CEO}	30	V
	Emitter-Collector voltage	V _{ECO}	5	V
Operating temp.		T _{opr.}	-20 ~ +85	°C
Storage temp.		T _{stg.}	-30 ~ +100	°C
Soldering temp. *2		T _{sol.}	260	°C

*1. pulse width : t_w ≤ 100usec. Period : t = 10msec

*2. For MAX. 5seconds at the position of 2mm 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	uA
	Peak wavelength	λ _p	I _F =20mA		940		nm
Output	Collector dark current	I _{CEO}	V _{CE} =10V		1	100	nA
Transmission	Light current	I _C	I _F =20mA, V _{CE} =5V(Non-shading)	0.3		5	mA
	Leakage current	I _{CEOD}	I _F =20mA, V _{CE} =5V(Shading)		0.5	10	uA
	C-E saturation voltage	V _{CE(sat)}	I _F =30mA, I _C =0.1mA		0.15	0.4	V
Switching Speeds	Rise time	t _r	V _{CC} =5V, I _C =0.1mA, R _L =1KΩ		50		usec.
	Fall time	t _f			50		usec.



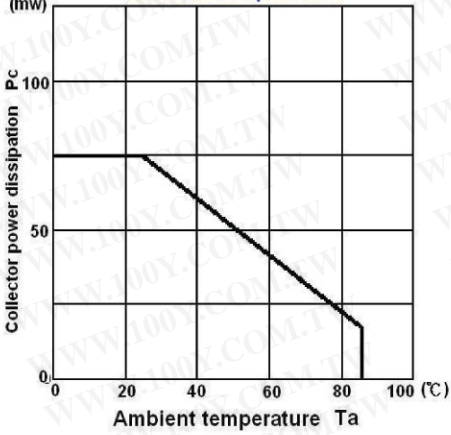
OPTO-SENSOR

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
 Http://www.100y.com.tw

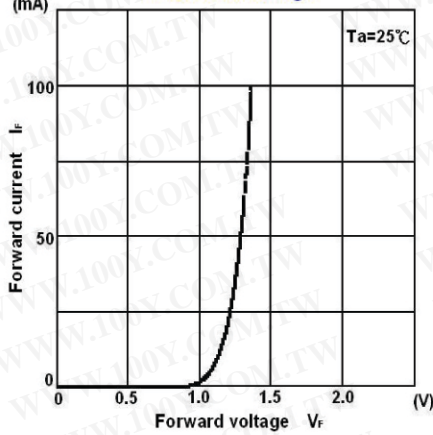
FI-233

PHOTO INTERRUPTER

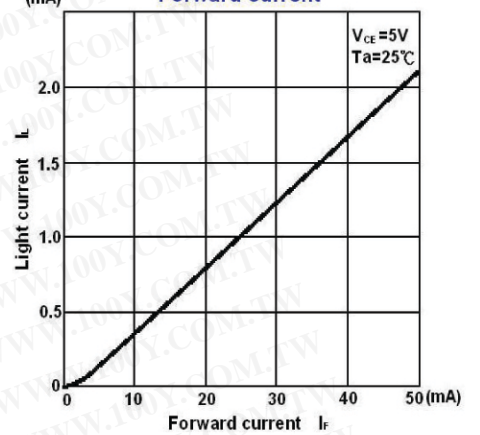
Collector power dissipation vs. Ambient temperature



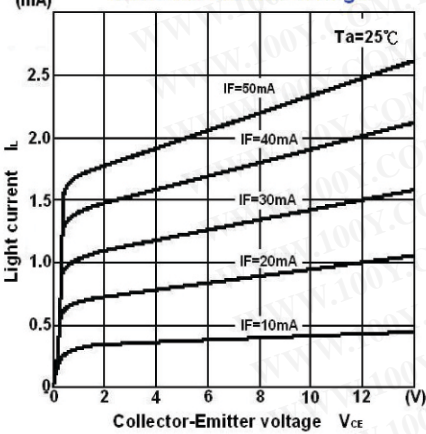
Forward current vs. Forward voltage



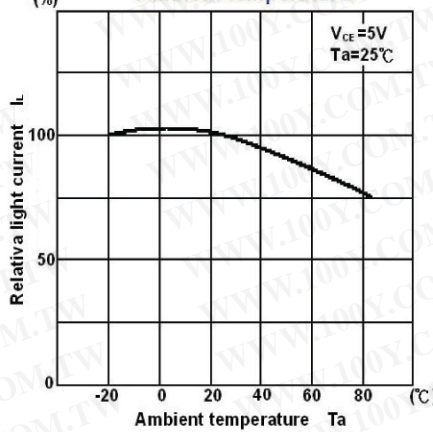
Light current vs. Forward current



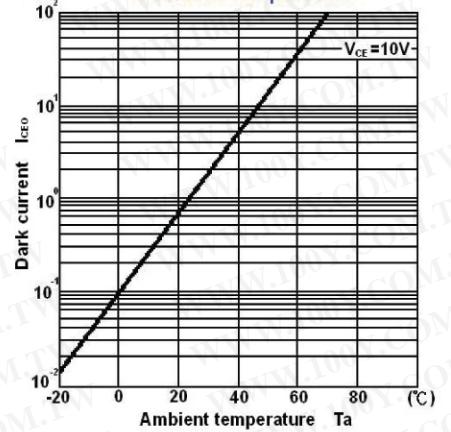
Light current vs. Collector-Emitter voltage



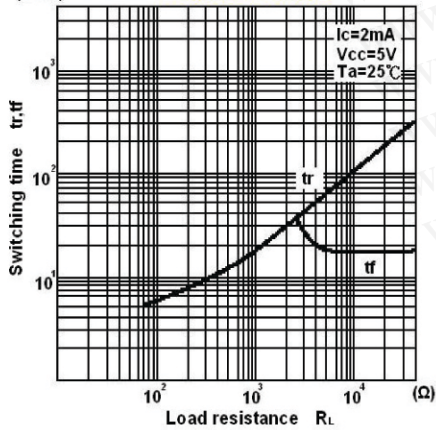
Relative light current vs. Ambient temperature



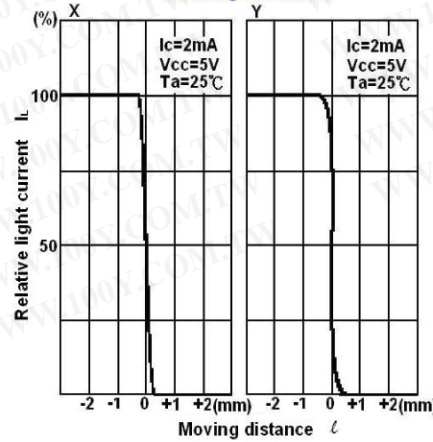
Dark current vs. Ambient temperature



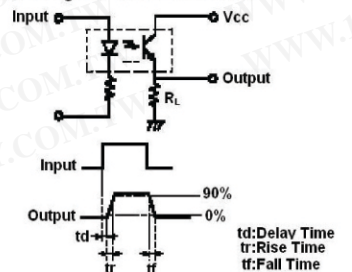
Switching time vs. Load resistance



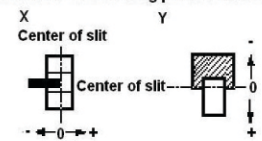
Relative light current vs. Moving distance



*1 Switching time measurement circuit

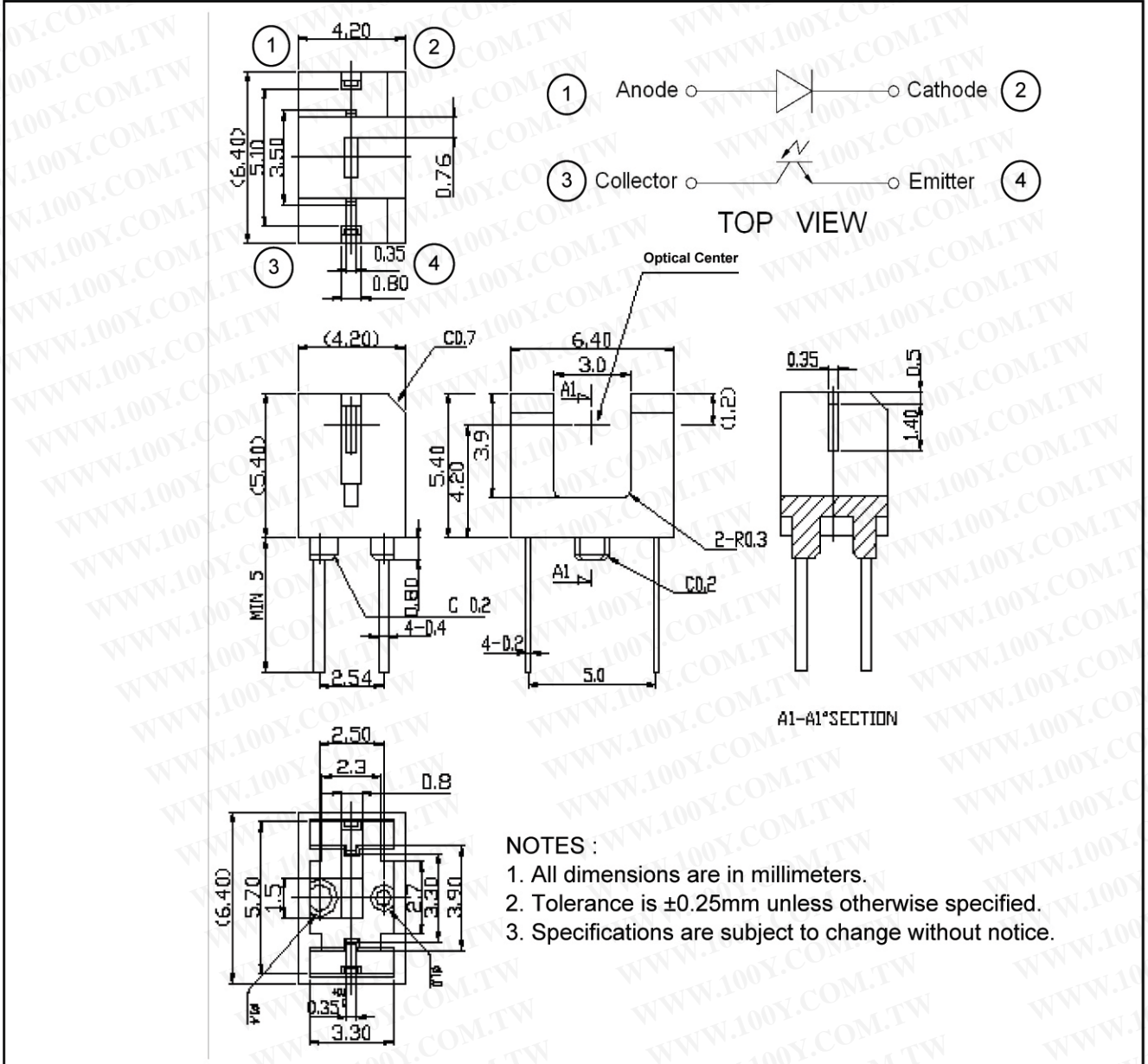


*2 Method of measuring position detection characteristic



■ Dimensions

(Unit : mm)



■ Application Circuit

