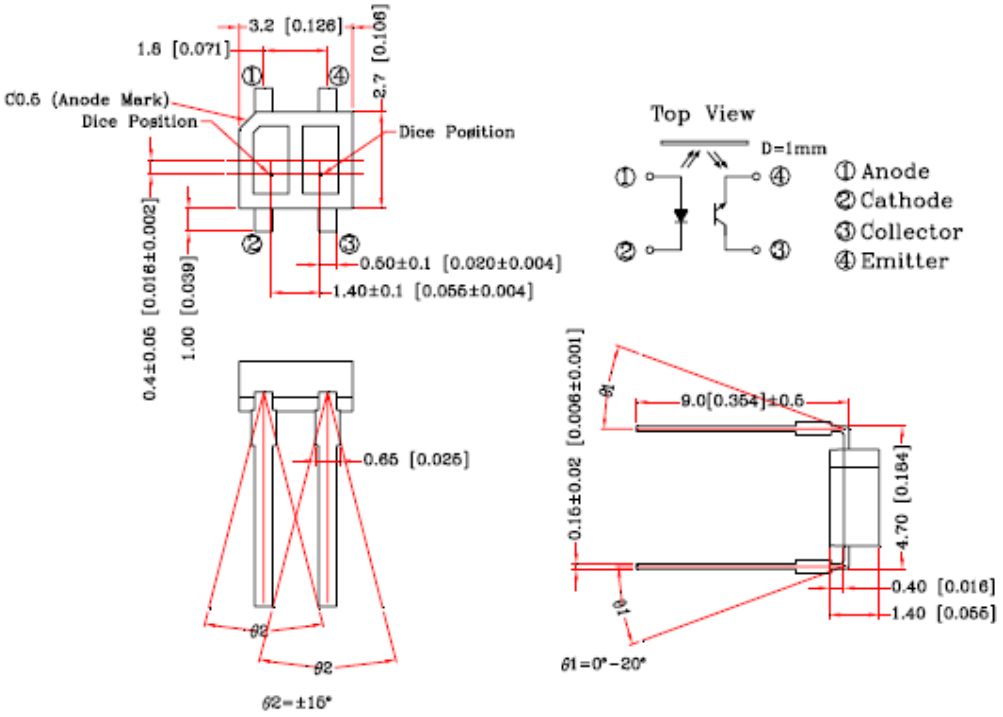
GENIXTEK CORP.

参考資料

DEVICE NO.:TPR-105F

This photo interrupters is non-contact switching and for direct pc board or dual-in-line socket mounting. It offers Fast switching speed. And this product doesn't contain restriction substance, comply ROHS standard.

PACKAGE DIMENSIONS:



NOTE:

All dimensions are in millimeters
Tolerance is ±0.25 mm unless otherwise noted
Lead spacing is measured where the leads emerge from the package.

Electrical Optical Characteristics (Ta=25℃)

Parameter		Symbol	Condition	MIN.	TYP.	MAX	UNIT
Input	Forward Voltage	V_F	I_F=20mA	---	1.2	1.5	V
	Reverse Current	I_R	V_R=5V	---	---	100	μA
	Peak Wavelength	λp	I_F=10mA	---	940	---	nm
Output	Dark Current	I_D	V_{CE}=10V	---	---	200	nA
	C-E Saturation Voltage	V_{CE} (sat)	I_C=0.25mA I_F=10mA	---	---	0.4	V
Light Current		I_L	V_{CE}=5V,I_F=10mA, D=1.0MM 90% Reflective white paper	80			μA
Speed	Rise Time	Tr	I_{FP}=20mA, V_{CE}=5V	---	20	---	μsec
	Fall Time	Tf	R_L=1000Ω	---	20	---	μsec

Absolute Maximum Rating (Ta=25℃)

Item		Symbol	Rating	Unit
Input	Power Dissipation	Pd	75	mW
	Reverse Voltage	V_R	5	V
	Forward Current	I_F	50	mA
	Peak Forward Current (*1)	I_{FP}	1	A
Output	Collector Power Dissipation	P_C	100	mW
	Collector Current	I_C	20	mA
	C-E Voltage	V_{CEO}	30	V
	E-C Voltage	V_{ECO}	5	V
Operating Temperature		Topr	-40 ~ +85	℃
Storage Temperature		Tstg	-40 ~ +100	℃
Soldering Temperature (*2)		Tsol	260	℃

(*1) tw=100 uSec.、T=10 mSec. (*2) t=3 Sec

※Specifications are subject to change without notice.

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Typical Electro-Optical Characteristics Curves

Fig.1 Power Dissipation vs. Ambient Temperature

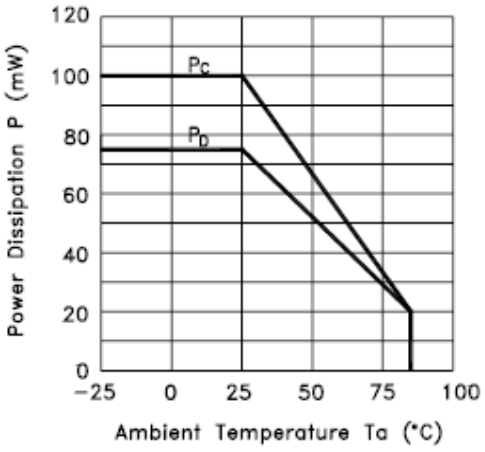


Fig.2 Forward Current vs. Forward Voltage

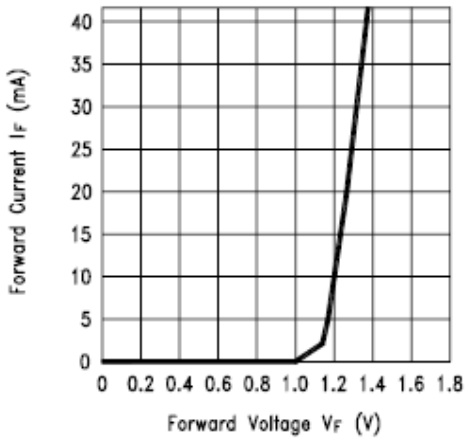


Fig.3 Collector Current vs. Collector-emitter Voltage

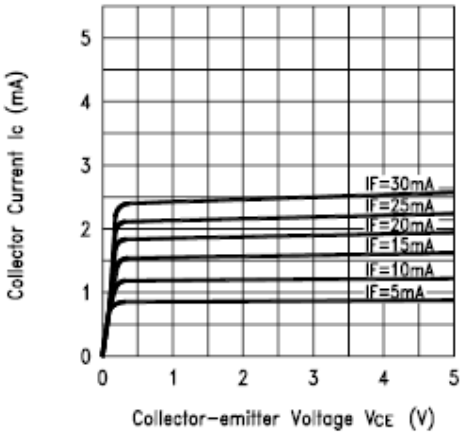
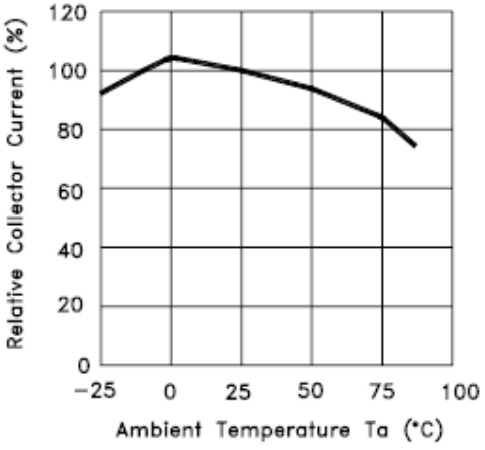


Fig.4 Collector Current vs. Ambient Temperature



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Typical Electro-Optical Characteristics Curves

Fig.5 Collector-emitter Saturation Voltage vs. Ambient Temperature

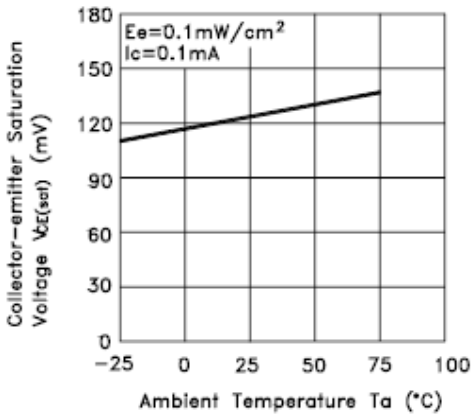


Fig.6 Response Time vs. Load Resistance

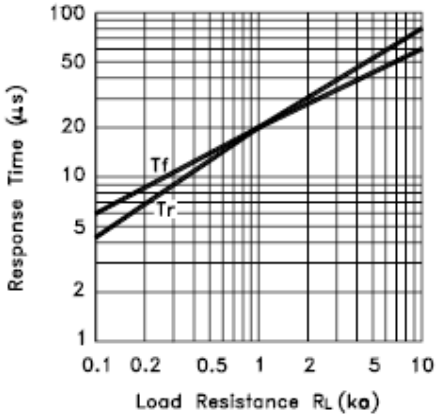
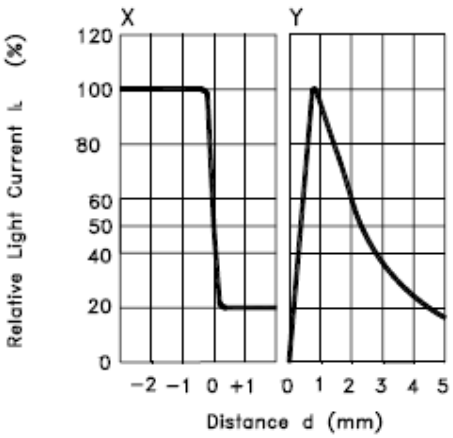
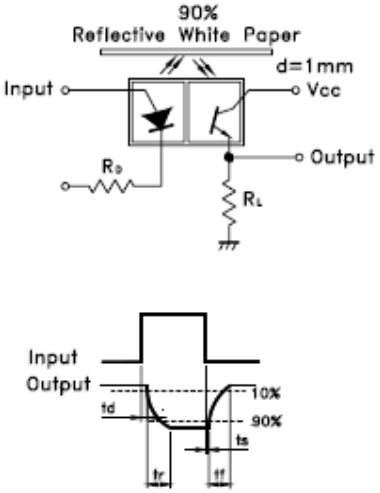


Fig.7 Sensing Position Characteristics (Typical)



Test Circuit for Response Time



参考資料

TPR-105, TEST REPORT FOR 20K PCS					
TEST CONDITION: VCE: 5V, IF=10mA					
BIN CLASS	CA	D	DB	ttl q'ty	no good
	IL=0.71 - 0.9mA	IL=0.91-1.85mA	IL=1.76mA-2.1mA		
q'ty by pc	1078	17300	2700	21120	42
percentage	5.10%	81.91%	12.78%	100.00%	0.21%

TPR-105F, TEST REPORT FOR 20K PCS					
TEST CONDITION: VCE: 5V, IF=10mA					
BIN CLASS	CA	D	DB	ttl q'ty	no good
	IL=0.71 - 0.9mA	IL=0.91-1.85mA	IL=1.76mA-2.1mA		
q'ty by pc	0	20000	0	20000	0
percentage	0	100%	0	100%	0