

Features

1. Ac inputs.
2. Opaque type, mini-flat package.
3. Subminiature type (The volume is smaller than that of our conventional DIP type by as far as 30%)
4. Isolation voltage between input and output (Viso:3750Vrms).

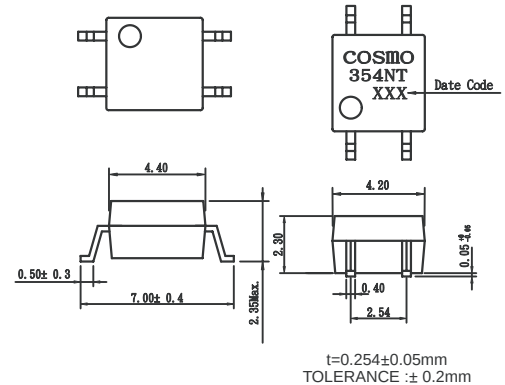
Applications

1. Hybrid substrates that require high density mounting.
2. Programmable controllers.

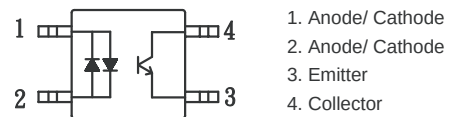
Classification table of current transfer ratio is shown below.

RANK MARK	CTR(%)
A	50 TO 150
B	20 TO 400

Outside Dimension : Unit (mm)



Schematic : Top View



Absolute Maximum Ratings

(Ta=25 °C)

Parameter	Symbol	Rating	Unit
Input			
Forward current	IF	± 50	mA
Peak forward current	IFM	± 1	A
Power dissipation	P	70	mW
Output			
Collector-emitter voltage	VCEO	60	V
Emitter-collector voltage	VECO	5	V
Collector current	IC	50	mA
Collector power dissipation	PC	150	mW
Total power dissipation	Ptot	170	mW
Isolation voltage 1 minute	Viso	3750	Vrms
Operating temperature	Topr	-30 to +100	°C
Storage temperature	Tstg	-40 to +125	°C
Soldering temperature 10 second	Tsol	260	°C

Electro-optical Characteristics

(Ta=25 °C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input						
Forward voltage	VF	IF =± 20mA	—	1.2	1.4	V
Terminal capacitance	Ct	V =0, f=1kHz	—	30	250	pF
Output						
Collector dark current	ICEO	VCE =20V, IF=0	—	—	0.1	uA
Collector-emitter breakdown voltage	BVCEO	IC =0.1mA, IF=0	60	—	—	V
Emitter- collector breakdown voltage	BVECO	IE =100uA, IF=0	5	—	—	V
Transfer characteristics						
Current transfer ratio	CTR	IF =± 1mA, VCE=5V	20	—	400	%
Collector-emitter saturation voltage	VCE (sat)	IF =± 20mA, IC=1mA	—	0.1	0.3	V
Isolation resistance	Riso	DC500V,40 to 60%RH	5X10 ¹⁰	10 ¹¹	—	ohm
Floating capacitance	Cf	V =0, f =1MHz	—	0.6	1.0	pF
Response time (Rise)	tr	VCE =2V, IC =2mA, RL =100ohm	—	4	18	us
Response time (Fall)	tf		—	3	18	us

Fig.1 Forward Current vs. Ambient Temperature

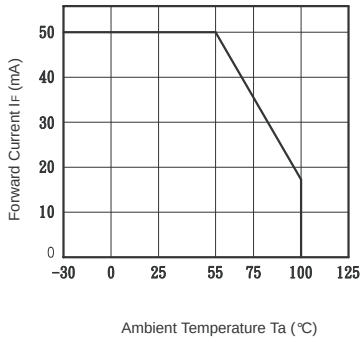


Fig.2 Diode Power Dissipation vs. Ambient Temperature

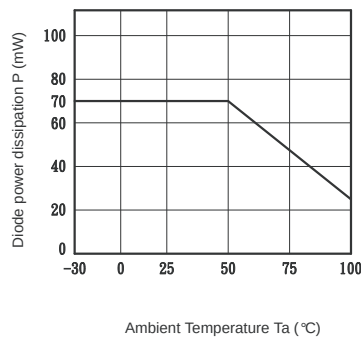


Fig.3 Collector Power Dissipation vs. Ambient Temperature

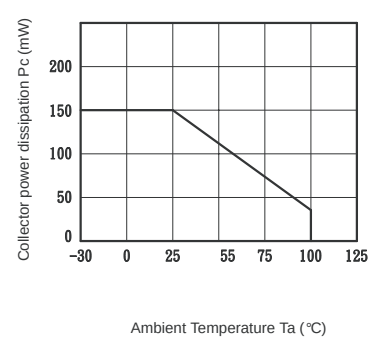


Fig.4 Total Power Dissipation vs. Ambient Temperature

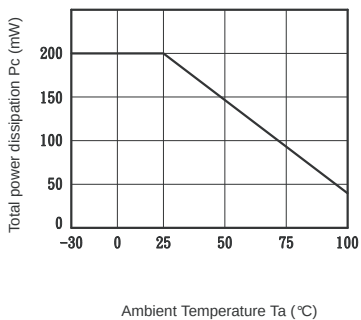


Fig.5 Peak Forward Current vs. Duty Ratio

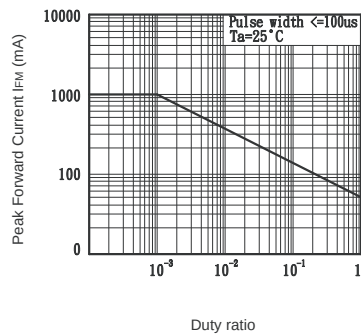


Fig.6 Forward Current vs. Forward Voltage

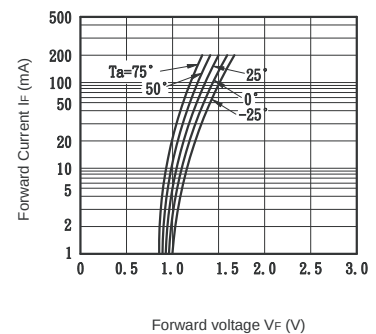


Fig.7 Current Transfer Ratio vs. Forward Current

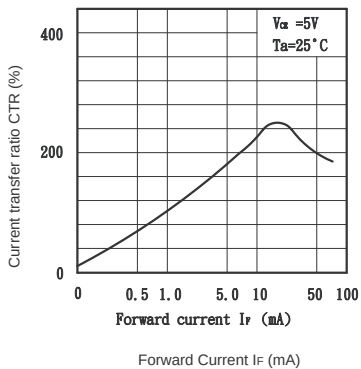


Fig.8 Collector Current vs. Collector-emitter Voltage

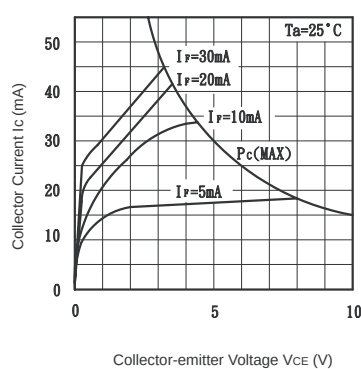


Fig.9 Relative Current Transfer Ratio vs. Ambient Temperature

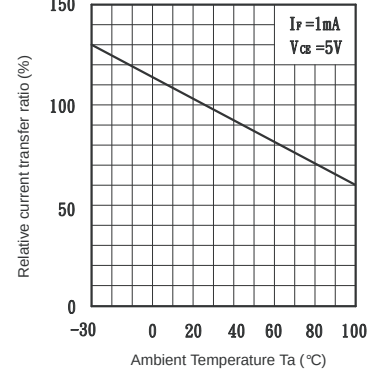


Fig.10 Collector-emitter Saturation Voltage vs. Ambient Temperature

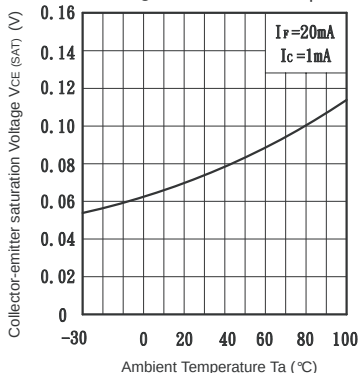


Fig.11 Collector Dark Current vs. Ambient Temperature

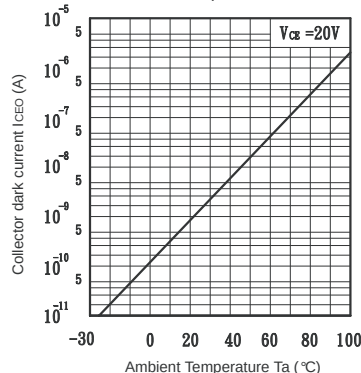


Fig.12 Response Time vs. Load Resistance

