

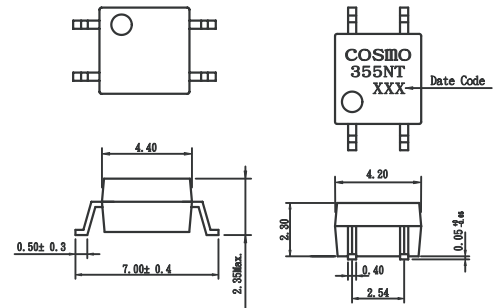
Features

1. High current transfer ratio
(CTR:MIN.600% at $I_F=1\text{mA}$, $V_{ce}=2\text{V}$)
2. High isolation voltage between input and output
(Viso:3750Vrms).
3. Mini-flat package.

Applications

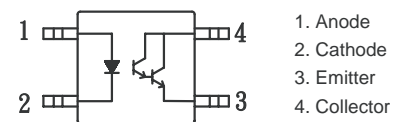
1. System appliances, measuring instruments.
2. Industrial robots.
3. Copiers, automatic vending machines, facsimiles
4. Signal transmission between circuits of different potentials and impedances.
5. Telephone sets.
6. Copiers, tacsimiles.
7. Interface with various power supply circuits, power distribution boards.
8. Numerical control machines.

Outside Dimension : Unit (mm)



TOLERANCE : ± 0.2mm

Schematic : Top View



1. Anode
2. Cathode
3. Emitter
4. Collector

Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Rating	Unit	
Input	Forward current	I_F	50	mA
	Peak forward current	I_{FM}	1	V
	Reverse voltage	V_R	6	V
	Power dissipation	P_D	70	mW
Output	Collector-emitter voltage	V_{CEO}	35	V
	Emitter-collector voltage	V_{ECO}	5	V
	Collector current	I_C	150	mA
	Collector power dissipation	P_C	150	mW
Total power dissipation	P_{tot}	170	mW	
Isolation voltage 1 minute	Viso	3750	Vrms	
Operating temperature	T_{opr}	-30 to +100	°C	
Storage temperature	T_{stg}	-40 to +125	°C	
Soldering temperature 10 second	T_{sol}	260	°C	

Electro-optical Characteristics

(Ta=25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	$I_F=20\text{mA}$	—	1.2	1.4	V
	Peak forward voltage	$I_{FM}=0.5\text{A}$	—	—	3.5	V
	Reverse current	$V_R=4\text{V}$	—	—	10	uA
	Terminal capacitance	$V=0, f=1\text{kHz}$	—	30	—	pF
Output	Collector dark current	$V_{CE}=10\text{V}, I_F=0$	—	—	1.0	uA
Transfer characteristics	Current transfer ratio	$I_F=1\text{mA}, V_{CE}=2\text{V}$	600	1600	7500	%
	Collector-emitter saturation voltage	$I_F=20\text{mA}, I_C=1\text{mA}$	—	—	1.0	V
	Isolation resistance	DC500V	5×10^{10}	—	—	ohm
	Floating capacitance	$V=0, f=1\text{MHz}$	—	0.6	1.0	pF
	Cut-off frequency	$V_{CC}=5\text{V}, I_C=2\text{mA}, R_L=100\text{ohm}$	—	7	—	KHZ
	Response time (Rise)	$V_{CE}=2\text{V}, I_C=2\text{mA}, R_L=100\text{ohm}$	—	60	300	us
	Response time (Fall)		—	53	250	us

Fig.1 Forward Current vs. Ambient Temperature

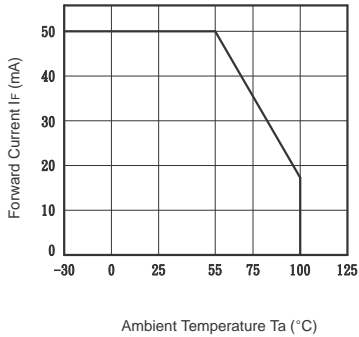


Fig.2 Collector Power Dissipation vs. Ambient Temperature

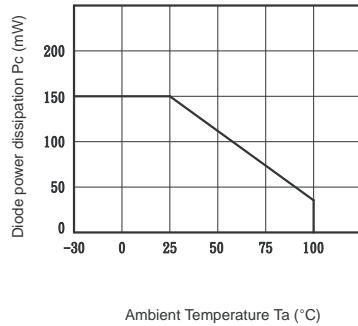


Fig.3 Peak Forward Current vs. Duty Ratio

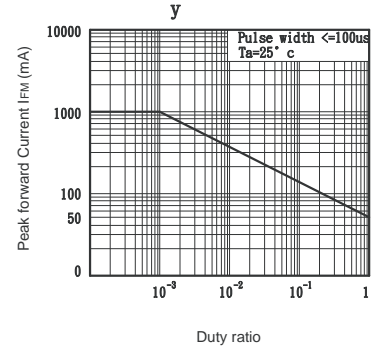


Fig.4 Forward Current vs. Forward Voltage

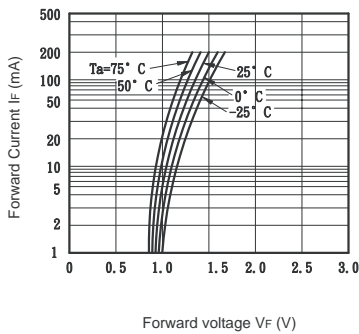


Fig.5 Current Transfer Ratio vs. Forward Current

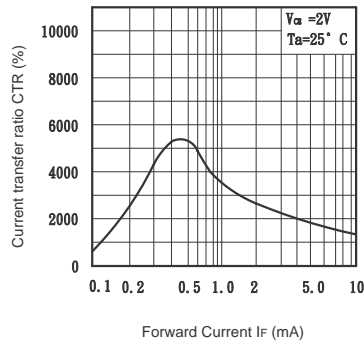


Fig.6 Collector Current vs. Collector-emitter Voltage

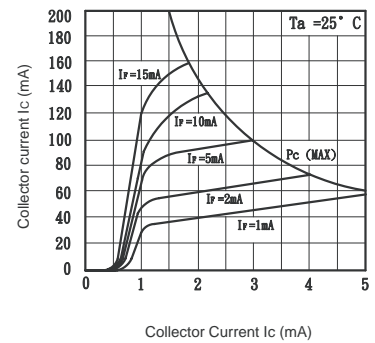


Fig.7 Relative Current Transfer Ratio vs. Ambient Temperature

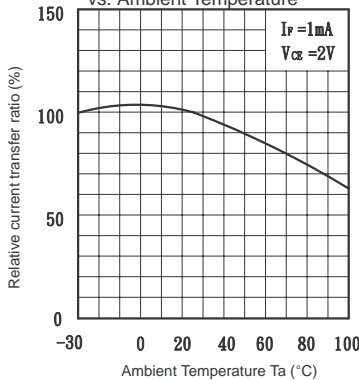


Fig.8 Collector-emitter Saturation Voltage vs. Ambient Temperature

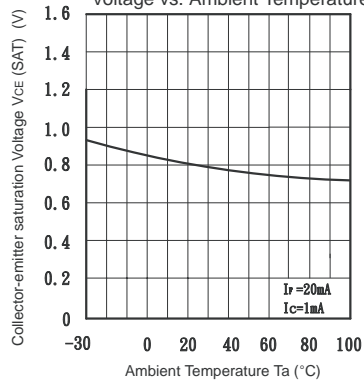


Fig.9 Collector Dark Current vs. Ambient Temperature

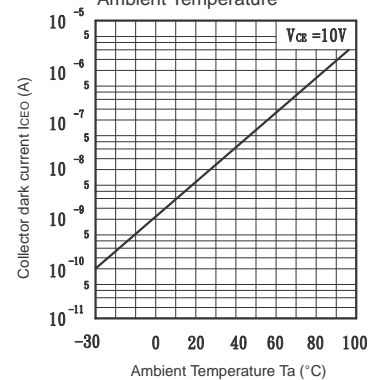


Fig.10 Response Time vs. Load Resistance

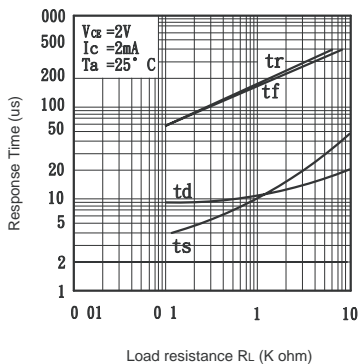


Fig.11 Collector-emitter Saturation Voltage vs. Forward current

