

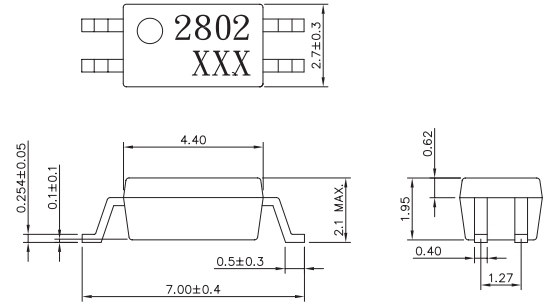
Features

- 1. High isolation voltage (BV=2500 Vrms)
- 2. Small and thin package (4pin SOP, Pin pitch 1.27 mm)
- 3. High current transfer ratio (CTR=2000% TYP. @ IF=1mA, VCE=2V)

Applications

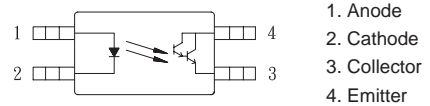
- 1. Programmable logic controllers
- 2. Measuring instruments
- 3. Hybrid IC

Outside Dimension:Unit (mm)



TOLERANCE : ± 0.2mm

Schematic:Top View



Absolute Maximum Ratings

(Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current (DC)	IF	50	mA
	Reverse voltage	VR	6	V
	Power dissipation derating	Pd/°C	0.6	mW / °C
	Power dissipation	Pd	60	mW
	Peak forward current *1	IFP	1	A
Output	Collector-emitter voltage	VCEO	40	V
	Emitter-collector voltage	VECO	6	V
	Collector current	IC	90	mA
	Power dissipation derating	Pc/°C	1.2	mW / °C
	Total power dissipation	Pc	120	mW
Isolation voltage *2		Viso	2500	Vrms
Operating temperature		Topr	-30 to +100	°C
Storage temperature		Tstg	-55 to +150	°C

*1 PW=100 μs, duty cycle=1%

*2 AC voltage for 1 minute at TA=25°C, RH=60% between input and output

Electro-optical Characteristics

(Ta=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	VF	IF=5mA		1.1	1.4	V
	Reverse current	IR	VR=5V			5	μA
	Terminal capacitance	Ct	V=0V, f=1.0MHZ		30		pF
Output	Collector-emitter dark current	ICEO	VCE=40V, IF=0mA			400	nA
Transfer characteristics	Current transfer ratio (IC / IF)	CTR	IF=1mA, VCE=2V	200	2000		%
	Collector saturation voltage	VCE (sat)	IF=1mA, IC=2mA	0.5		1.0	V
	Isolation resistance	RI-o	VI-o=500VDC	5X10 ¹⁰	10 ¹¹		ohm
	Floating capacitance	CI-o	V=0V, f=1.0MHZ		0.4		pF
	Response time (Rise) *1	tr	VCE=5V, IC=2mA, RL=100ohm		200		μS
Response time (Fall) *1	tf			200		μS	

*1 Test circuit for switching time

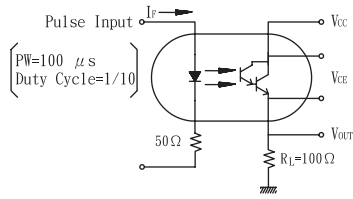


Fig.1 Forward Current vs. Ambient Temperature

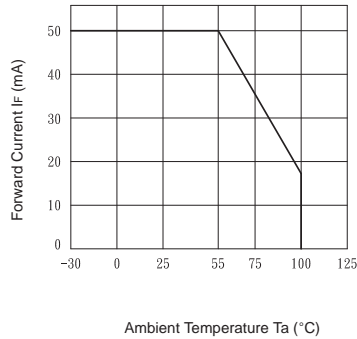


Fig.2 Collector Power Dissipation vs. Ambient Temperature

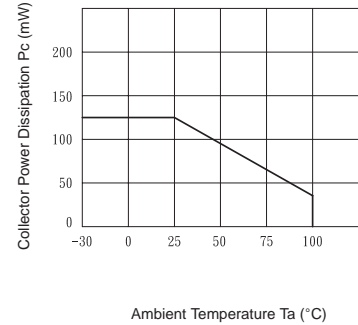


Fig.3 Peak Forward Current vs. Duty Ratio

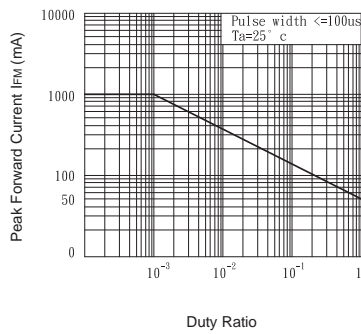


Fig.4 Forward Current vs. Ambient Temperature

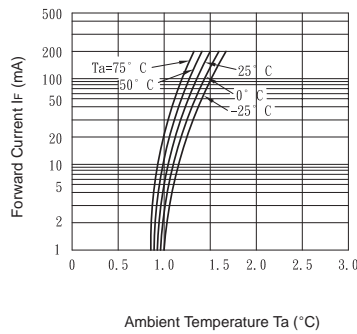


Fig.5 Current Transfer Ratio vs. Forward Current

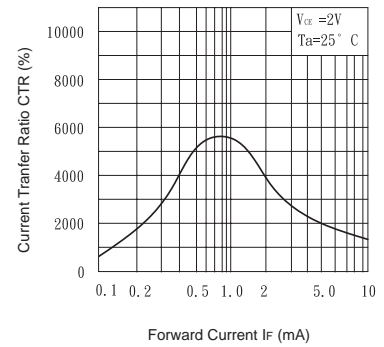


Fig.6 Collector Current vs. Collector-emitter Voltage

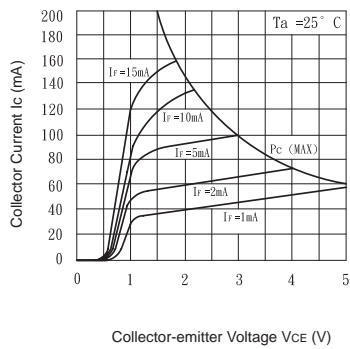


Fig.7 Relative Current Transfer Ratio vs. Ambient Temperature

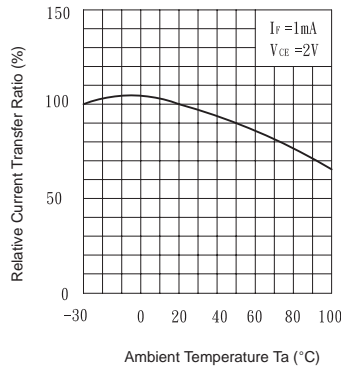


Fig.8 Collector-emitter Saturation Voltage vs. Ambient Temperature

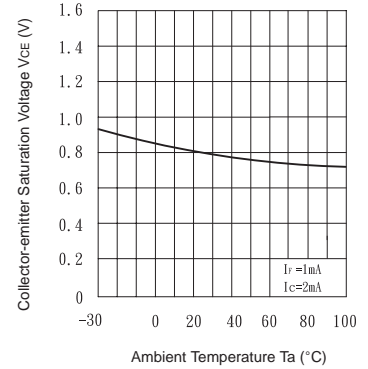


Fig.9 Collector Dark Current vs. Ambient Temperature

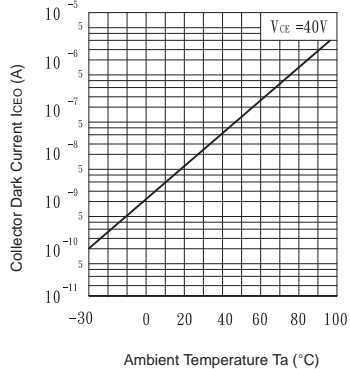


Fig.10 Response Time vs. Load Resistance

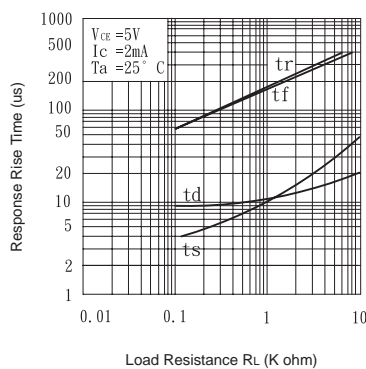


Fig.11 Collector-emitter Saturation Voltage vs. Forward Current

