

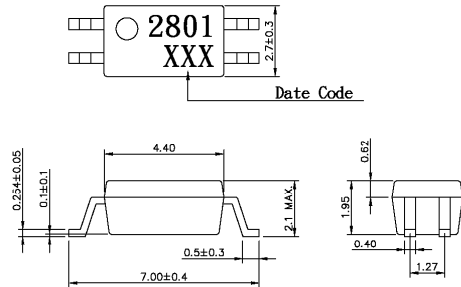
Features

1. High isolation voltage (BV = 2500 Vrms)
2. Small and thin package (4pin SOP, Pin pitch 1.27mm)
3. High collector to emitter voltage (Vce0 = 80 V)
4. High-speed switching (tr = 3 us (TYP)., tf = 5 us (TYP.))

Applications

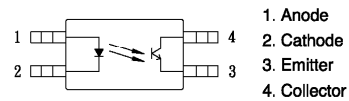
1. Programmable logic controllers
2. Measuring instruments
3. Power supply
4. Hybrid IC
5. Gaming machines

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	80	V
	Emitter-collector voltage	VECO	6	V
	Collector current	IC	50	mA
	Power dissipation derating	PC/°C	1.2	mW/°C
	Total power dissipation	Ptot	160	mW
Isolation voltage ⁽²⁾		Viso	2500	Vrms
Operating temperature		Topr	-30 to +100	°C
Storage temperature		Tstg	-55 to +125	°C

*1 PW=100us, 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	uA
	Terminal capacitance	Ct	V=0V, f=1MHz	—	30	—	pF
Output	Collector dark current	ICEO	VCE =80V, IF =0mA	—	—	100	nA
Transfer characteristics	Current transfer ratio	CTR	IF =5mA, VCE=5V	80	—	600	%
	Collector-emitter saturation voltage	VCE(sat)	IF=10mA, IC=2mA	—	0.1	0.3	V
	Isolation resistance	Riso	DC500V	5X10 ¹⁰	10 ¹¹	—	ohm
	Floating capacitance	Cr	V=0V, f=1.0MHz	—	0.4	—	pF
	Response time(Rise)	tr	VCE=5V, IC=2mA, RL=100ohm	—	3	18	us
Response time(Fall)	tf	—		5	18		

*1 Test circuit for switching time.

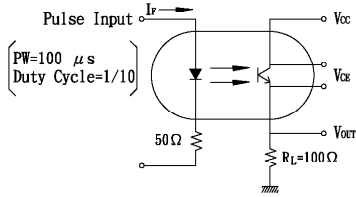


Fig.1 Current Transfer Ratio vs. Forward Current

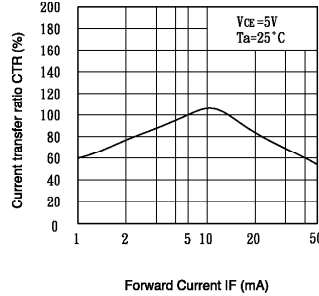


Fig.2 Collector Power Dissipation vs. Ambient Temperature

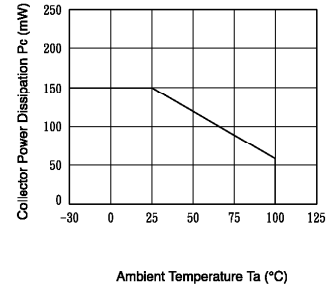


Fig.3 Collector Dark Current vs. Ambient Temperature

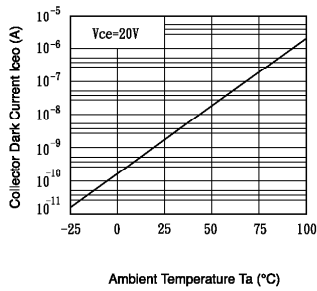


Fig.4 Forward Current vs. Ambient Temperature

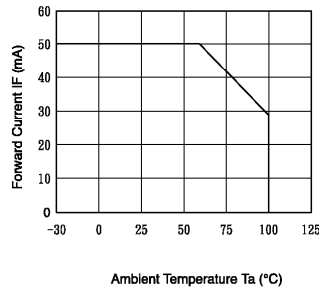


Fig.5 Forward Current vs. Forward Voltage

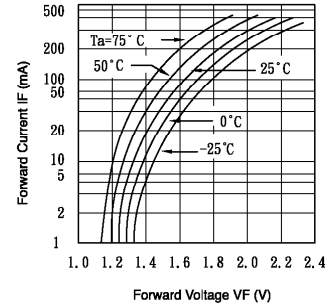


Fig.6 Collector Current vs. Collector-emitter Voltage

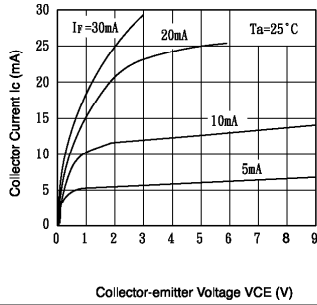


Fig.7 Relative Current Transfer Ratio vs. Ambient Temperature

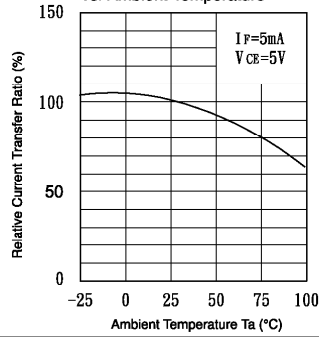


Fig.8 Collector-emitter Saturation Voltage vs. Ambient Temperature

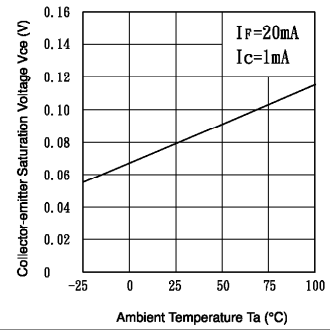


Fig.9 Collector-emitter Saturation Voltage vs. Forward Current

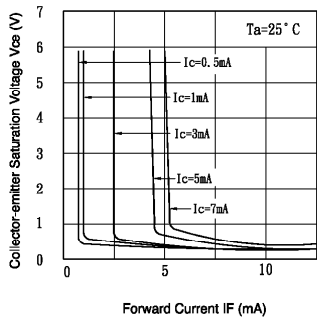


Fig.10 Response Time vs. Load Resistance

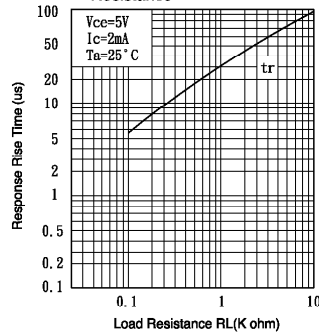


Fig.11 Response Time vs. Load Resistance

