

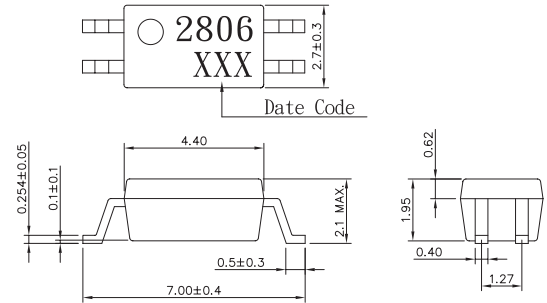
Features

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

Applications

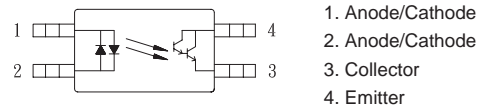
- 1. Programmable logic controllers
- 2. Measuring instruments
- 3. Hybrid IC

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
	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%

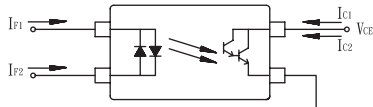
*2 AC voltage for 1 minute at TA=25jC, RH=60% between input and output

Electro-optical Characteristics

(Ta=25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	IF=± 5mA		1.1	1.4	V
	Terminal capacitance	V=0V, f=1.0MHz		60		pF
Output	Collector-emitter dark current	VCE=40V, IF=0mA			400	nA
Transfer characteristics	Current transfer ratio (IC / IF)	IF=± 1mA, VCE=2V	200	2000		%
	CTR ratio *1	IF=1mA, VCE=2V	0.3	1.0	3.0	
	Collector saturation voltage	IF=± 10mA, IC=2mA	旻		1.0	V
	Isolation resistance	VI-O=500VDC	5X10 ¹⁰	10 ¹¹		ohm
	Floating capacitance	V=0V, f=1.0MHZ		0.4		pF
	Response time (Rise) *2	VCE=5V, IC=2mA, RL=100ohm			200	
Response time (Fall) *2				200		μS

*1 $CTR1=I_{c1} / I_{f1}$, $CTR1=I_{c2} / I_{f2}$



*2 Test circuit for switching time

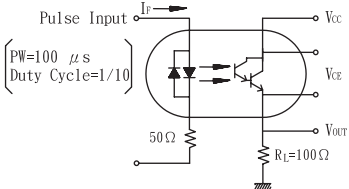


Fig.1 Forward Current vs. Ambient Temperature

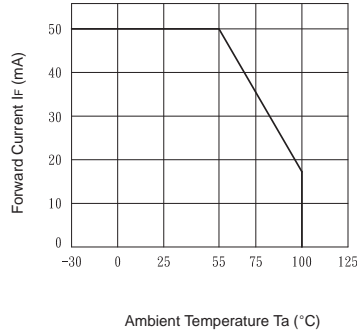


Fig.2 Collector Power Dissipation vs. Ambient Temperature

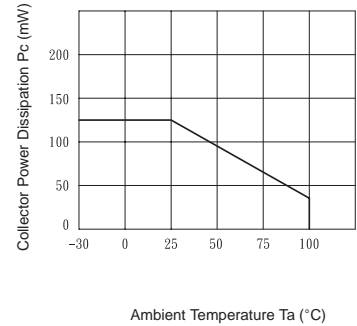


Fig.3 Peak Forward Current vs. Duty Ratio

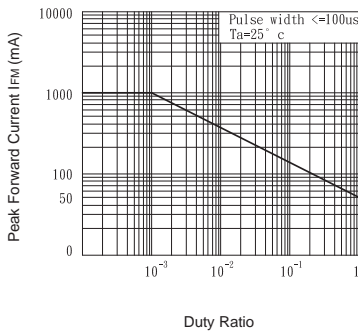


Fig.4 Forward Current vs. Forward Voltage

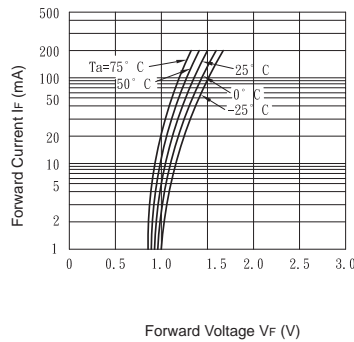


Fig.5 Current Transfer Ratio vs. Forward Current

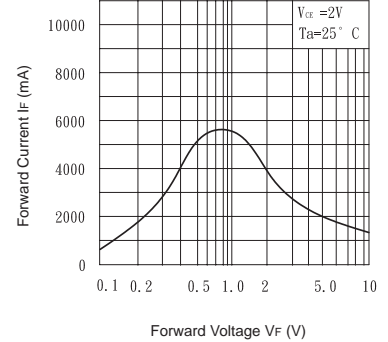


Fig.6 Collector Current vs. Collector-emitter Voltage

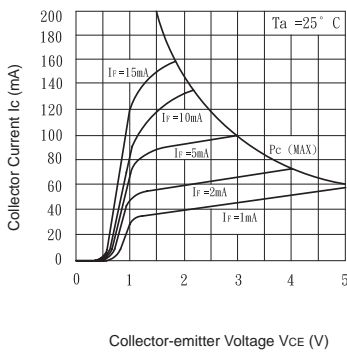


Fig.7 Relative Current Transfer Ratio vs. Ambient Temperature

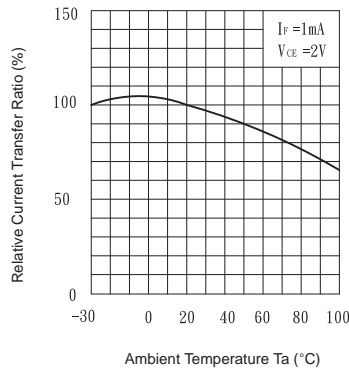


Fig.8 Collector-emitter Saturation Voltage vs. Ambient Temperature

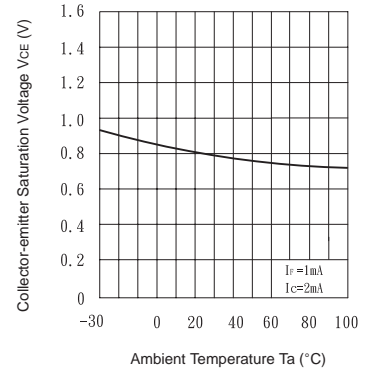


Fig.9 Collector Dark Current vs. Ambient Temperature

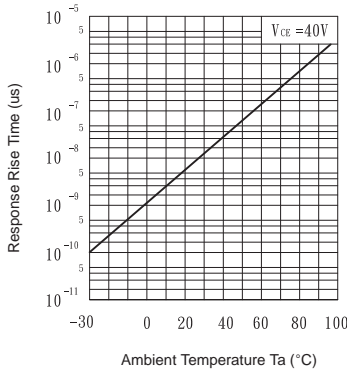


Fig.10 Response Time vs. Load Resistance

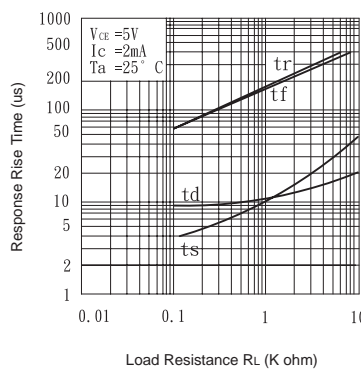


Fig.11 Collector-emitter Saturation Voltage vs. Forward Current

