

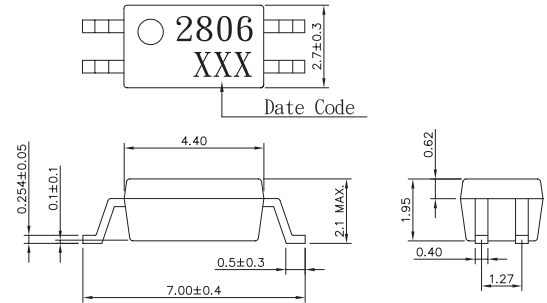
**Features**

- 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**

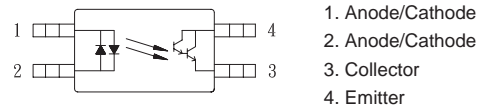
- 1. Programmable logic controllers
- 2. Measuring instruments
- 3. Hybrid IC

**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%

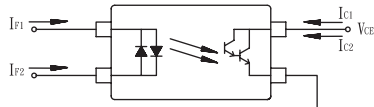
\*2 AC voltage for 1 minute at TA=25jC, RH=60% between input and output

**Electro-optical Characteristics**

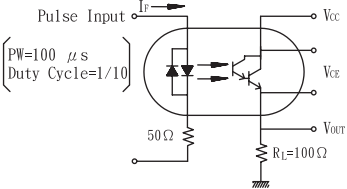
(Ta=25°C)

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 <sup>10</sup>	10 <sup>11</sup>		ohm
	Floating capacitance	V=0V, f=1.0MHZ		0.4		pF
	Response time (Rise) *2	VCE=5V, IC=2mA, RL=100ohm		200		μS
Response time (Fall) *2			200		μS	

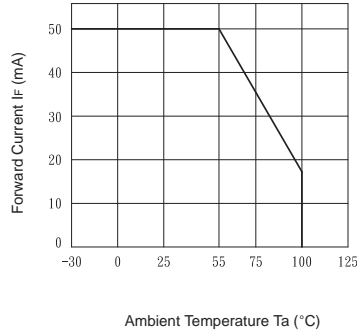
\*1  $CTR1=I_{c1} / I_{f1}$ ,  $CTR1=I_{c2} / I_{f2}$



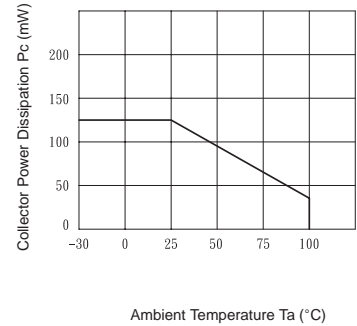
\*2 Test circuit for switching time



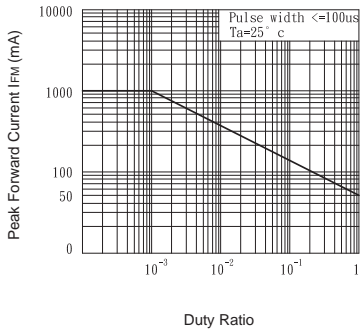
**Fig.1** Forward Current vs. Ambient Temperature



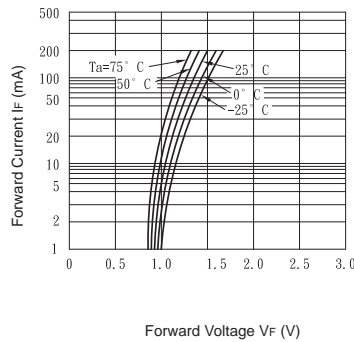
**Fig.2** Collector Power Dissipation vs. Ambient Temperature



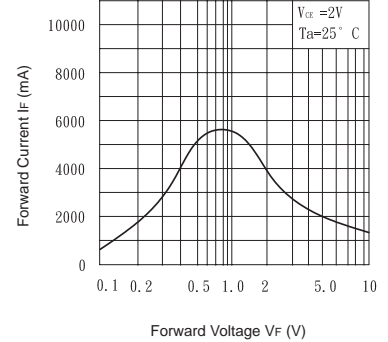
**Fig.3** Peak Forward Current vs. Duty Ratio



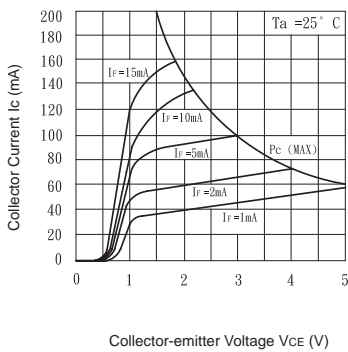
**Fig.4** Forward Current vs. Forward Voltage



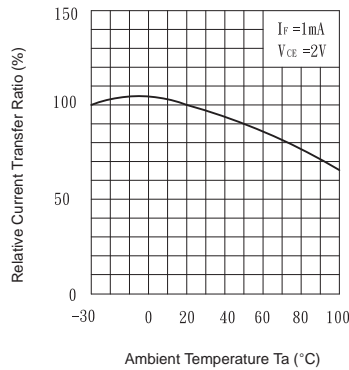
**Fig.5** Current Transfer Ratio vs. Forward Current



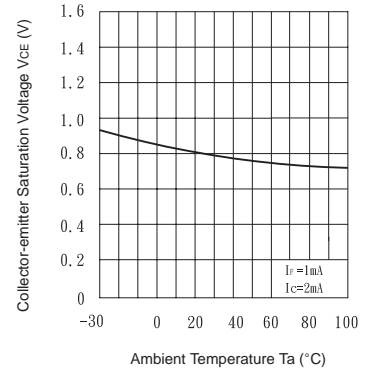
**Fig.6** Collector Current vs. Collector-emitter Voltage



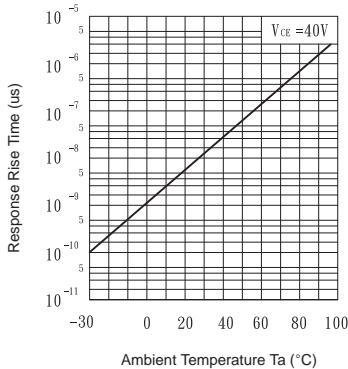
**Fig.7** Relative Current Transfer Ratio vs. Ambient Temperature



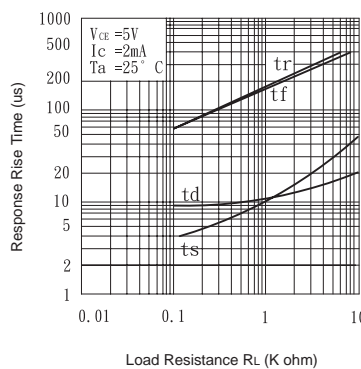
**Fig.8** Collector-emitter Saturation Voltage vs. Ambient Temperature



**Fig.9** Collector Dark Current vs. Ambient Temperature



**Fig.10** Response Time vs. Load Resistance



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

