

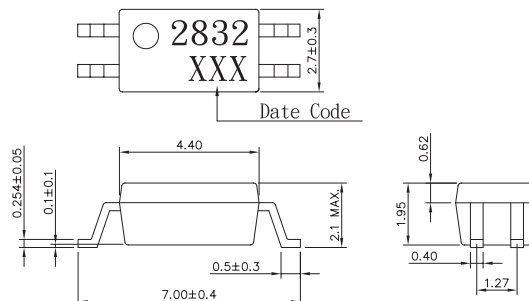
Features

1. High isolation voltage (BV=2500 Vrms)
2. Small and thin package (4pin SOP, Pin pitch 1.27 mm)
3. High collector to emitter voltage ($V_{CE0}=300V$)
4. High current transfer ratio
(CTR=2000% TYP. @ $I_F=1mA$, $V_{CE}=2V$)

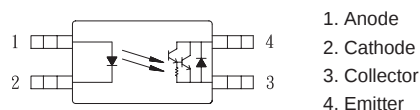
Applications

1. Hybrid IC
2. Telephone/Telegraph Receiver
3. FAX

Outside Dimension:Unit (mm)

TOLERANCE : $\pm 0.2mm$

Schematic:Top View



Absolute Maximum Ratings

(Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current (DC)	I_F	50	mA
	Reverse voltage	V_R	6	V
	Power dissipation derating	$P_D/^\circ C$	0.6	mW / $^\circ C$
	Power dissipation	P_D	60	mW
	Peak forward current *1	I_{FP}	1	A
Output	Collector-emitter voltage	V_{CE0}	300	V
	Emitter-collector voltage	V_{ECO}	0.3	V
	Collector current	I_C	60	mA
	Power dissipation derating	$P_C/^\circ C$	1.2	mW / $^\circ C$
	Total power dissipation	P_C	120	mW
Isolation voltage *2		V_{iso}	2500	Vrms
Operating temperature		T_{opr}	-30 to +100	$^\circ C$
Storage temperature		T_{stg}	-55 to +150	$^\circ C$

*1 $P_W=100 \mu s$, duty cycle=1%*2 AC voltage for 1 minute at $T_A=25^\circ C$, RH=60% between input and output

Electro-optical Characteristics

(Ta=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F=10mA$		1.1	1.4	V
	Reverse current	I_R	$V_R=5V$			5	μA
	Terminal capacitance	C_t	$V=0V$, $f=1.0MHz$		30		pF
Output	Collector-emitter dark current	I_{CEO}	$V_{CE}=300V$, $I_F=0mA$			400	nA
Transfer characteristics	Current transfer ratio (I_C / I_F)	CTR	$I_F=1mA$, $V_{CE}=2V$	400	2000		%
	Collector saturation voltage	$V_{CE(sat)}$	$I_F=1mA$, $I_C=2mA$	旻		1.0	V
	Isolation resistance	R_{i-o}	$V_{i-o}=500VDC$	5×10^{10}	10^{11}		ohm
	Floating capacitance	C_{i-o}	$V=0V$, $f=1.0MHz$		0.4		pF
	Response time (Rise) *1	t_r	$V_{CE}=5V$, $I_C=10mA$, $R_L=100ohm$		40		μs
	Response time (Fall) *1	t_f			10		μs

*1 Test circuit for switching time

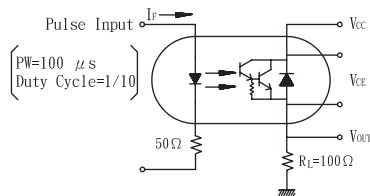


Fig.1 Current Transfer Ratio vs. Forward Current

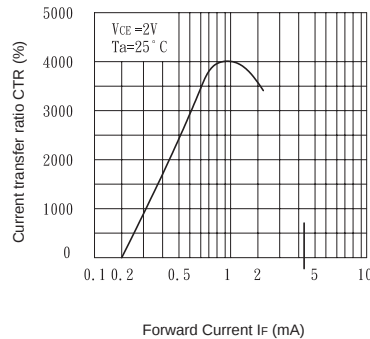


Fig.2 Collector Power Dissipation vs. Ambient Temperature

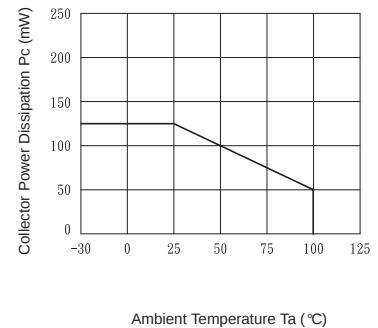


Fig.3 Collector Dark Current vs. Ambient Temperature

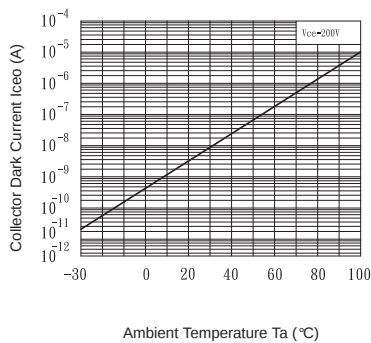


Fig.4 Forward Current vs. Ambient Temperature

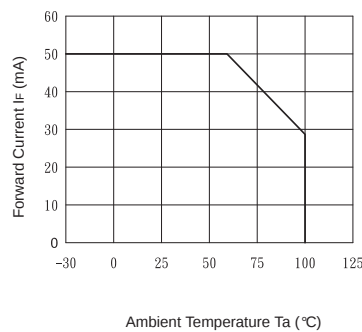


Fig.5 Forward Current vs. Forward Voltage

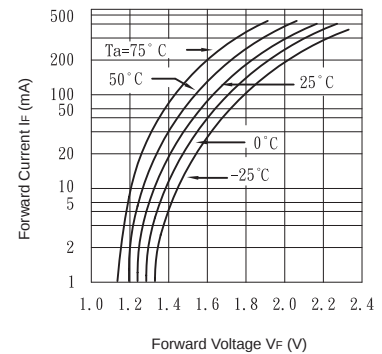


Fig.6 Collector Current vs. Collector-emitter Voltage

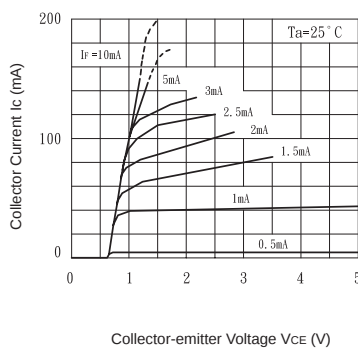


Fig.7 Collector-emitter Saturation Voltage vs. Forward Current

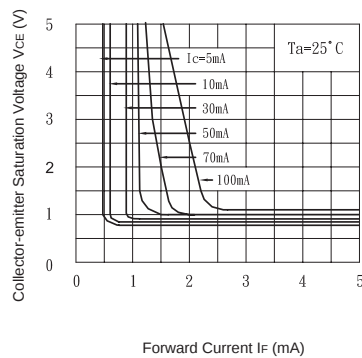


Fig.8 Relative Current Transfer Ratio vs. Ambient Temperature

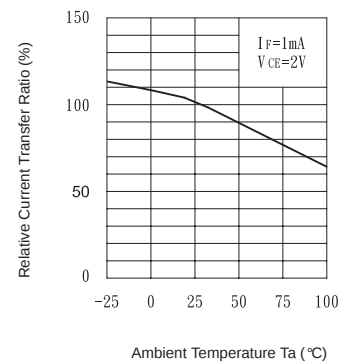


Fig.9 Response Time vs. Load Resistance

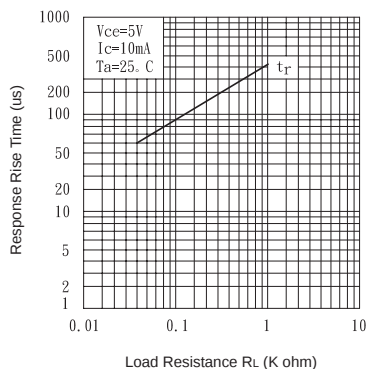


Fig.10 Response Time vs. Load Resistance

