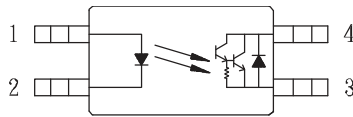


Schematic:



For dimensions and pin-outs, see the last page of this document.

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_{CEO}=300V)
4. High current transfer ratio
(CTR=2000% TYP. @ I_F=1mA, V_{CE}=2V)

Ordering:

Suffix to Standard Part Number

- V = VDE Compliant
- G = 10mm Lead Spread
- S = Surface Mount Lead-form
- T = Tape & Reel

Equivalents:

This part equals/exceeds all specifications of:

- PS2832

Absolute Maximum Ratings:

(T_a=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 /°C	0.6	mW / °C
	Power dissipation	P _D	60	mW
	Peak forward current ⁺¹	I _{FP}	1	A
Output	Collector-emitter voltage	V _{CEO}	300	V
	Emitter-collector voltage	V _{EEO}	0.3	V
	Collector current	I _C	60	mA
	Power dissipation derating	P _C /°C	1.2	mW / °C
	Total power dissipation	P _C	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 T_A=25°C, RH=60% between input and output

Electrical Characteristics:

(T_a=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	—	—	1.0	V
	Isolation resistance	R _{i-o}	V _{i-o} =500VDC	5X10 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

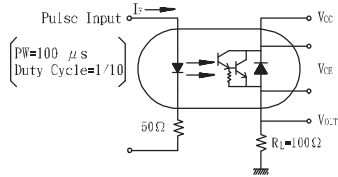


Fig.1 Current Transfer Ratio vs. Forward Current

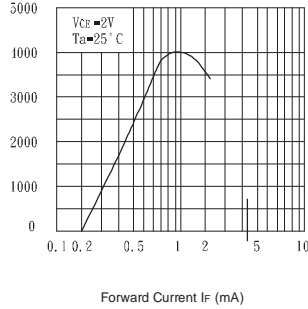


Fig.2 Collector Power Dissipation vs. Ambient Temperature

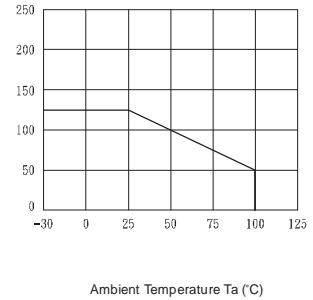


Fig.3 Collector Dark Current vs. Ambient Temperature

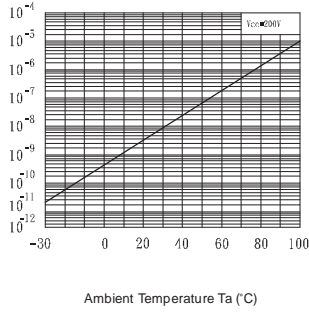


Fig.4 Forward Current vs. Ambient Temperature

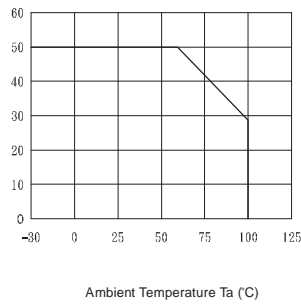


Fig.5 Forward Current vs. Forward Voltage

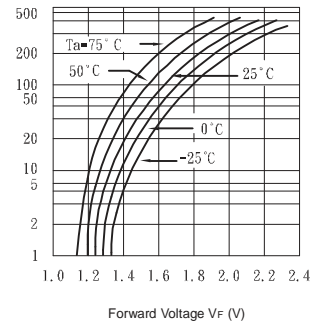


Fig.6 Collector Current vs. Collector-emitter Voltage

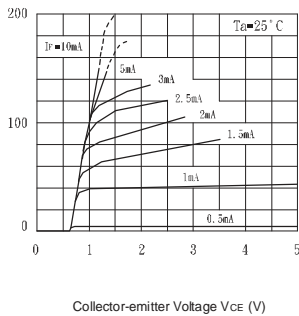


Fig.7 Collector-emitter Saturation Voltage vs. Forward Current

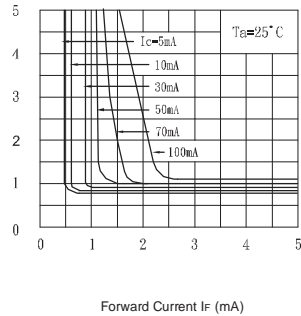


Fig.8 Relative Current Transfer Ratio vs. Ambient Temperature

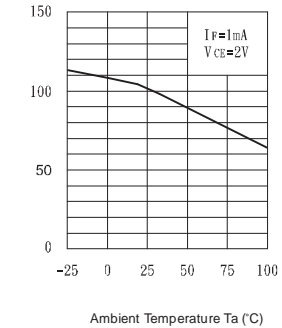


Fig.9 Response Time vs. Load Resistance

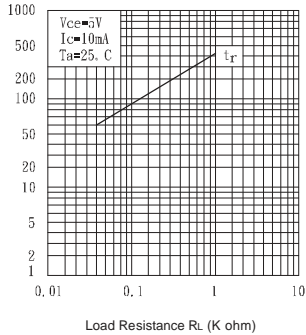


Fig.10 Response Time vs. Load Resistance

