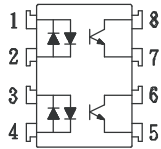


Schematic:



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

Features:

1. Current transfer ratio (CTR:MIN.60% at $I_F=1\text{mA}$ $V_{ce}=5\text{V}$)
2. High isolation voltage between input and output (Viso:5300Vrms).
3. Compact dual-in-line package.
4. Ac input.

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:

- ISP824, 620-2
- PC824
- PS2505-2
- TLP620-2

Absolute Maximum Ratings:

($T_a=25^\circ\text{C}$)

	Parameter	Symbol	Rating	Unit
Input	Forward current	I_F	± 50	mA
	Peak forward current	I_{FM}	± 1	A
	Power dissipation	P_D	70	mW
Output	Collector-emitter voltage	V_{CEO}	80	V
	Emitter-collector voltage	V_{ECO}		V
	Collector current	I_C	50	mA
	Collector power dissipation	P_C	150	mW
	Total power dissipation	P_{tot}	200	mW
	Isolation voltage 1 minute	V_{iso}	5300	Vrms
	Operating temperature	T_{opr}	-55 to +100	$^\circ\text{C}$
	Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$
	Soldering temperature 10 second	T_{sol}	260	$^\circ\text{C}$

Electrical Characteristics:

($T_a=25^\circ\text{C}$)

	Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F=\pm 20\text{mA}$	—	1.2	1.4	V
	Peak forward voltage	V_{FM}	$I_{FM}=\pm 0.5\text{A}$	—	—	3.5	V
	Terminal capacitance	C_t	$V=0, f=1\text{kHz}$	—	30	—	pF
Output	Collector dark current	I_{CEO}	$V_{CE}=20\text{V}, I_F=0$	—	—	0.1	μA
Transfer characteristics	Current transfer ratio	CTR	$I_F=\pm 1\text{mA}, V_{CE}=5\text{V}$	60	—	600	%
	Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_F=\pm 20\text{mA}, I_C=1\text{mA}$	—	0.1	0.3	V
	Isolation resistance	Riso	DC500V	5×10^{10}	10^{11}	—	ohm
	Floating capacitance	C_f	$V=0, f=1\text{MHz}$	—	0.6	1.0	pF
	Cut-off frequency	f_c	$V_{CC}=5\text{V}, I_C=2\text{mA}, R_L=100\text{ohm}$	—	80	—	kHz
	Response time (Rise)		$V_{CE}=2\text{V}, I_C=2\text{mA}, R_L=100\text{ohm}$	—	5	20	us
	Response time (Fall)	t_f		—	4	20	us

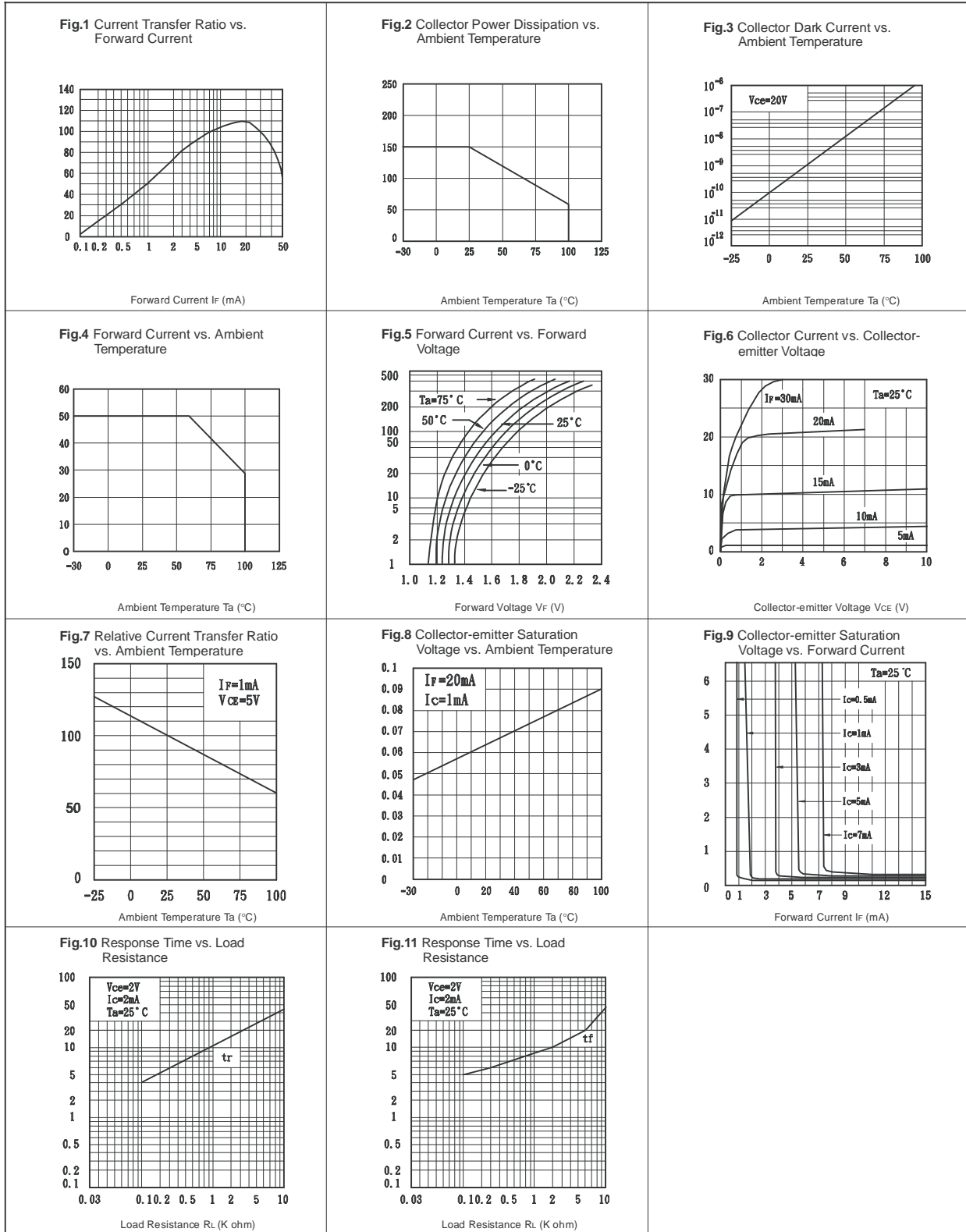


Fig.7 : 8-pin DIP type

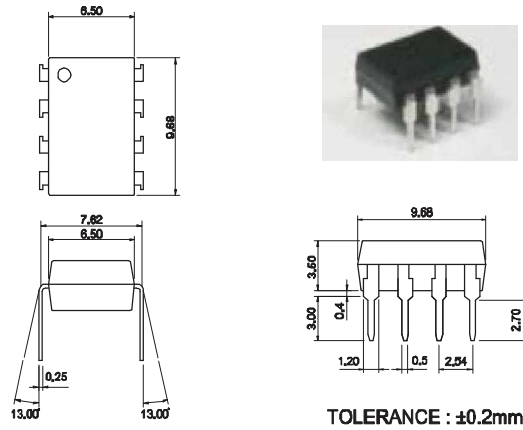


Fig.8 : 8-pin SMD type

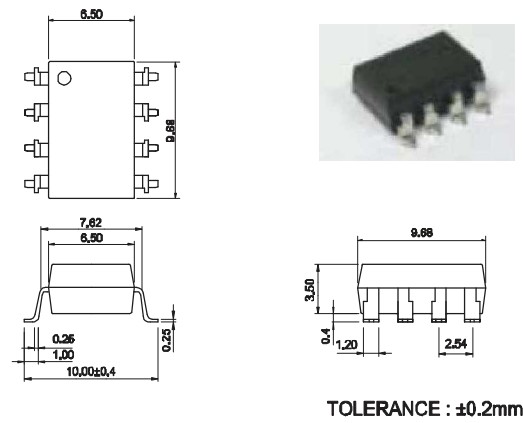


Fig.9 : 8-pin^G type

