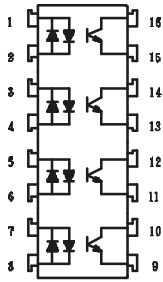


Schematic:



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
- ISP844, 620-4
- PC844
- PS2505-4
- TLP620-4

Equivalents:

This part equals/exceeds all specifications of:

Absolute Maximum Ratings:

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

Parameter	Symbol	Rating	Unit
Input	Forward current	± 50	mA
	Peak forward current	± 1	A
	Power dissipation	70	mW
Output	Collector-emitter voltage	80	V
	Emitter-collector voltage		V
	Collector current	50	mA
	Collector power dissipation	150	mW
Total power dissipation	Ptot	200	mW
Isolation voltage 1 minute	Viso	5300	Vrms
Operating temperature	Topr	-55 to +100	$^\circ\text{C}$
Storage temperature	Tstg	-55 to +125	$^\circ\text{C}$
Soldering temperature 10 second	Tsol	260	$^\circ\text{C}$

Electrical Characteristics:

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

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

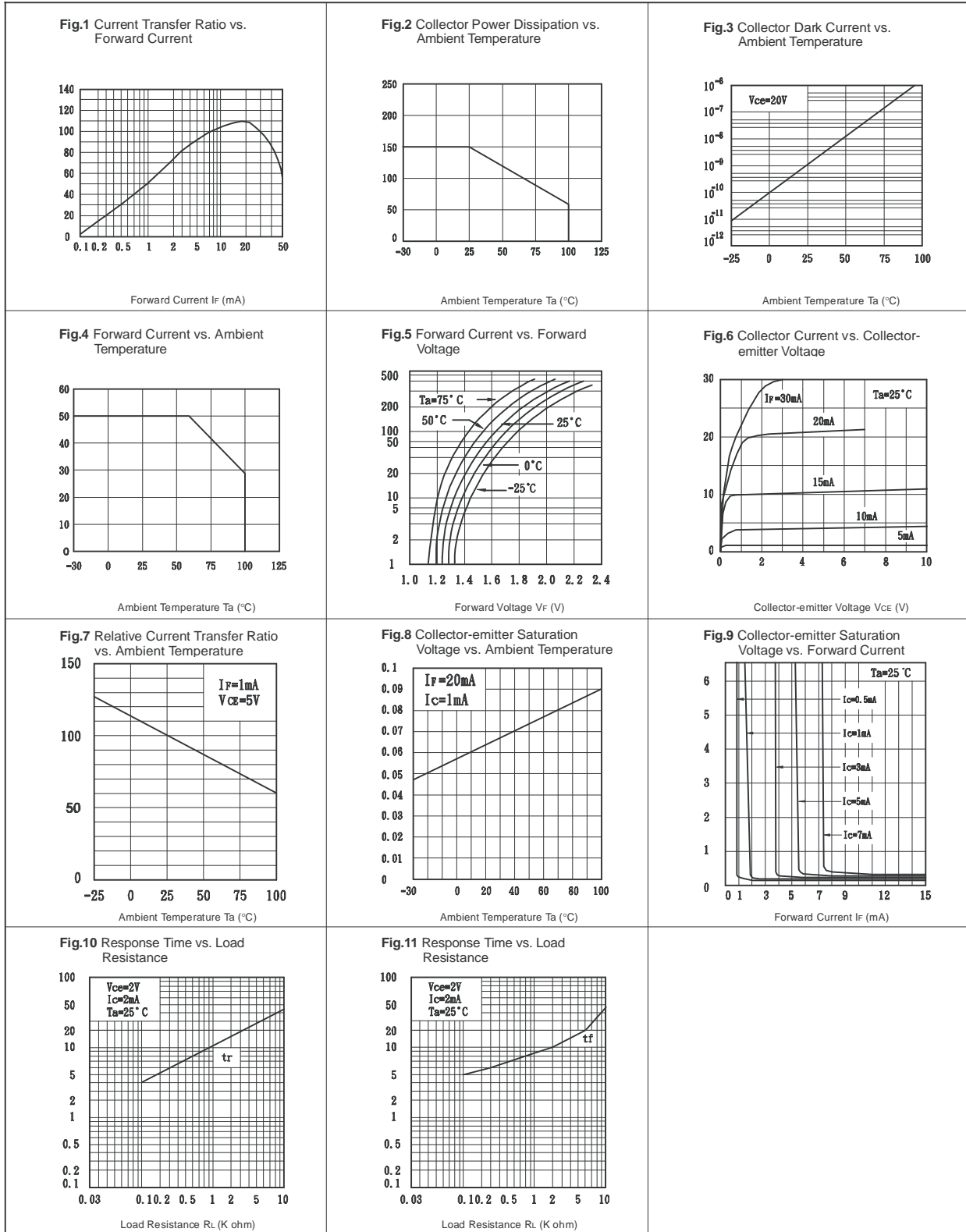
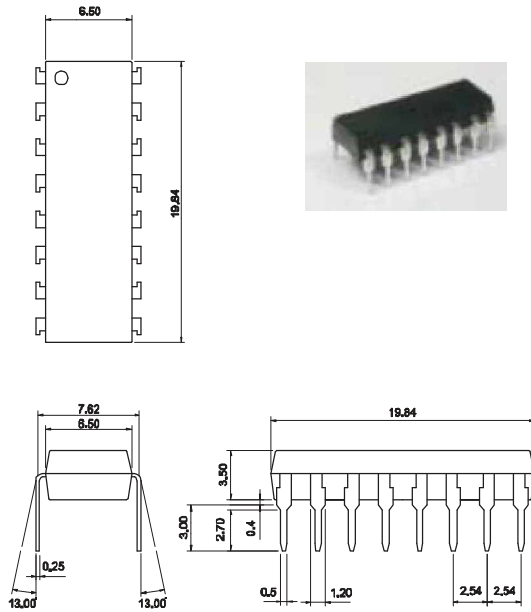
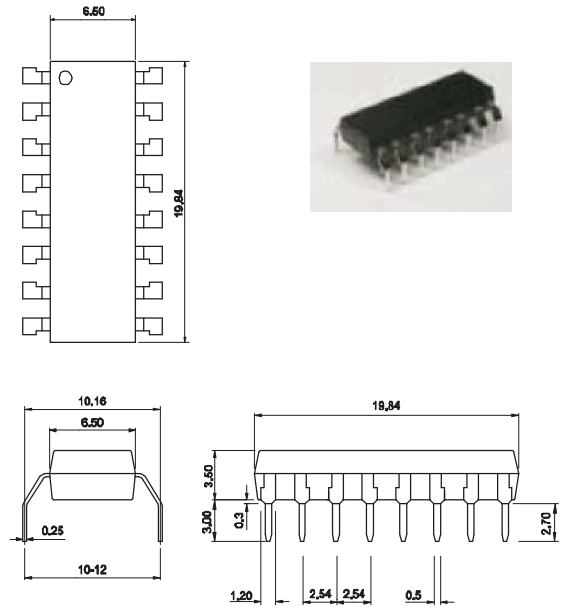


Fig.10 : 16-pin DIP type



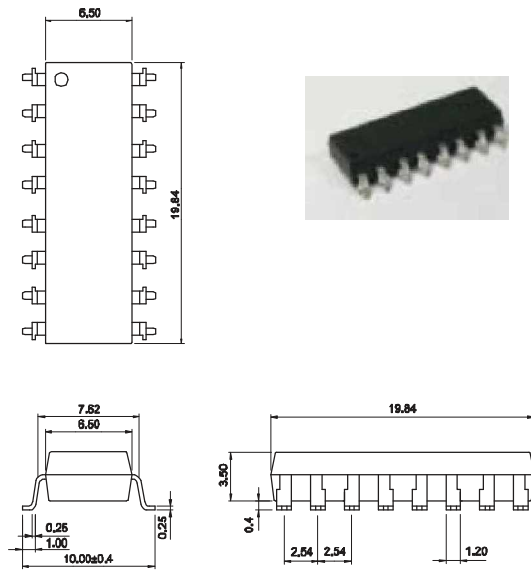
TOLERANCE : $\pm 0.2\text{mm}$

Fig.12 : 16-pin G type



TOLERANCE : $\pm 0.2\text{mm}$

Fig.11 : 16-pin SMD type



TOLERANCE : $\pm 0.2\text{mm}$