

## Silicon PNP Power Transistors

2SA747

## DESCRIPTION

- With TO-3 package
- Wide area of safe operation
- Complement to type 2SC1116

## APPLICATIONS

- For audio and general purpose applications

## PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

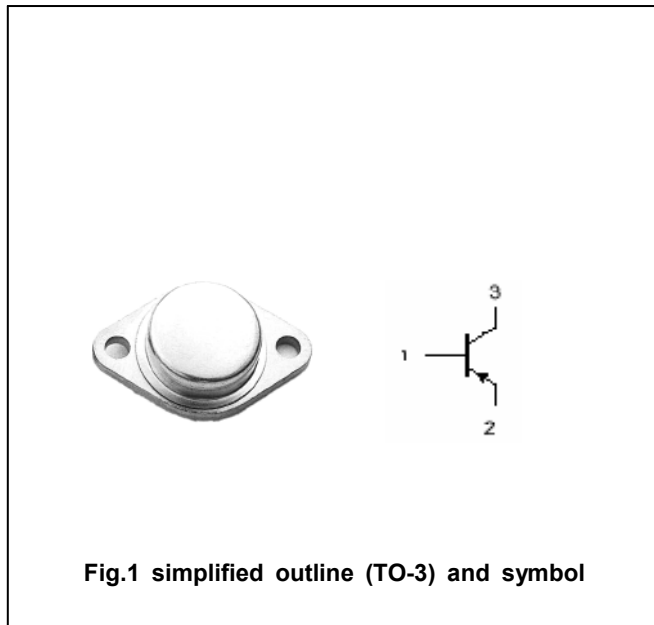


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings( $T_a = \square$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-120	V
$V_{CEO}$	Collector-emitter voltage	Open base	-120	V
$V_{EBO}$	Emitter-base voltage	Open collector	-6	V
$I_C$	Collector current		-10	A
$I_B$	Base current		-4	A
$P_C$	Collector power dissipation	$T_C = 25 \square$	100	W
$T_j$	Junction temperature		150	$\square$
$T_{stg}$	Storage temperature		-65~150	$\square$

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## CHARACTERISTICS

T<sub>j</sub>=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-50mA ; I <sub>B</sub> =0	-120			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1mA ; I <sub>C</sub> =0	-6			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-5A ; I <sub>B</sub> =-0.5A			-2.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-5A ; I <sub>B</sub> =-0.5A			-2.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-120V ; I <sub>E</sub> =0			-0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-6V ; I <sub>C</sub> =0			-1.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-3A ; V <sub>CE</sub> =-4V	30			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-12V		15		MHz

## Switching times

t <sub>r</sub>	Rise time	V <sub>CC</sub> =-12V; R <sub>L</sub> =4Ω; I <sub>C</sub> =-3A I <sub>B1</sub> =-200mA, I <sub>B2</sub> =50mA		1.2		μs
t <sub>stg</sub>	Storage time			3.3		μs
t <sub>f</sub>	Fall time			0.8		μs

PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.1mm)