

**Silicon PNP Power Transistors**

**2SA1044**

**DESCRIPTION**

- With TO-3 package
- High transition frequency
- Excellent safe operating area

**APPLICATIONS**

- Power switching applications
- High frequency power amplifier
- Switching regulators
- DC-DC converters

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

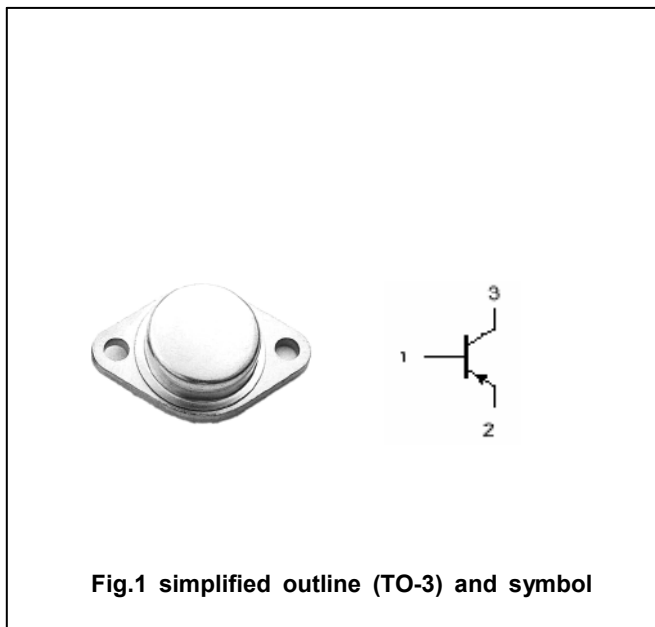


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-70	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-70	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-7	V
I <sub>C</sub>	Collector current		-30	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25□	150	W
T <sub>j</sub>	Junction temperature		175	□
T <sub>stg</sub>	Storage temperature		-55~200	□

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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> =-10mA ; I <sub>B</sub> =0	-70			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-0.1mA ; I <sub>E</sub> =0	-70			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-0.1mA ; I <sub>C</sub> =0	-7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-15A; I <sub>B</sub> =-1.5A			-1.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-15A; I <sub>B</sub> =-1.5A			-2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-70V; I <sub>E</sub> =0			-50	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-7V; I <sub>C</sub> =0			-50	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-3A ; V <sub>CE</sub> =-5V	35		200	
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =-10V; f=1.0MHz		700		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-2A ; V <sub>CE</sub> =-10V		60		MHz

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PACKAGE OUTLINE



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