

**Inchange Semiconductor**

**Product Specification**

**Silicon PNP Power Transistors**

**2SA1051**

**DESCRIPTION**

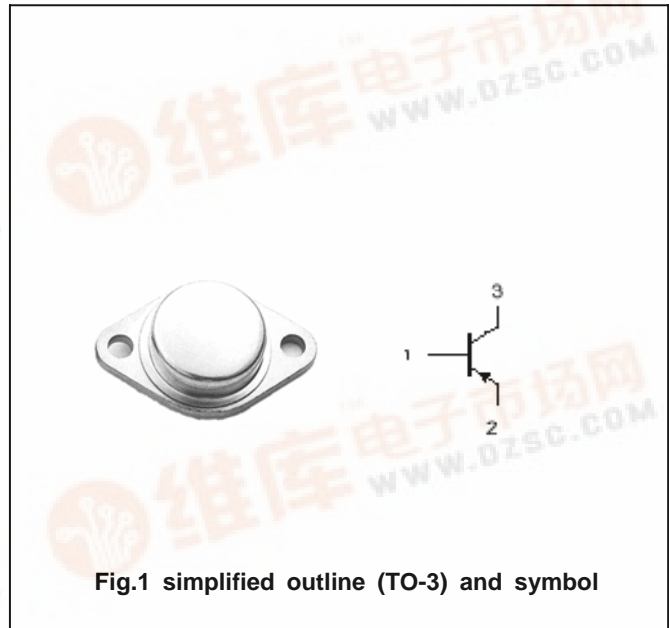
- With TO-3 package
- High transition frequency
- Excellent safe operating area

**APPLICATIONS**

- For audio and general purpose power amplifier applications

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



**Absolute maximum ratings(Ta=°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-150	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-150	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-15	A
I <sub>B</sub>	Base current		-1.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	150	W
T <sub>j</sub>	Junction temperature		175	°C
T <sub>stg</sub>	Storage temperature		-55~200	°C

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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> =-25mA ; I <sub>B</sub> =0	-150			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-1mA ; I <sub>E</sub> =0	-150			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1mA ; I <sub>C</sub> =0	-5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-10A ; I <sub>B</sub> =-1A			-3.0	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-8A ; V <sub>CE</sub> =-5V			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-140V ; I <sub>E</sub> =0			-10	μ A
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V ; I <sub>C</sub> =0			-10	μ A
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V	55		160	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-8A ; V <sub>CE</sub> =-5V	35			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-10V		60		MHz

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PACKAGE OUTLINE

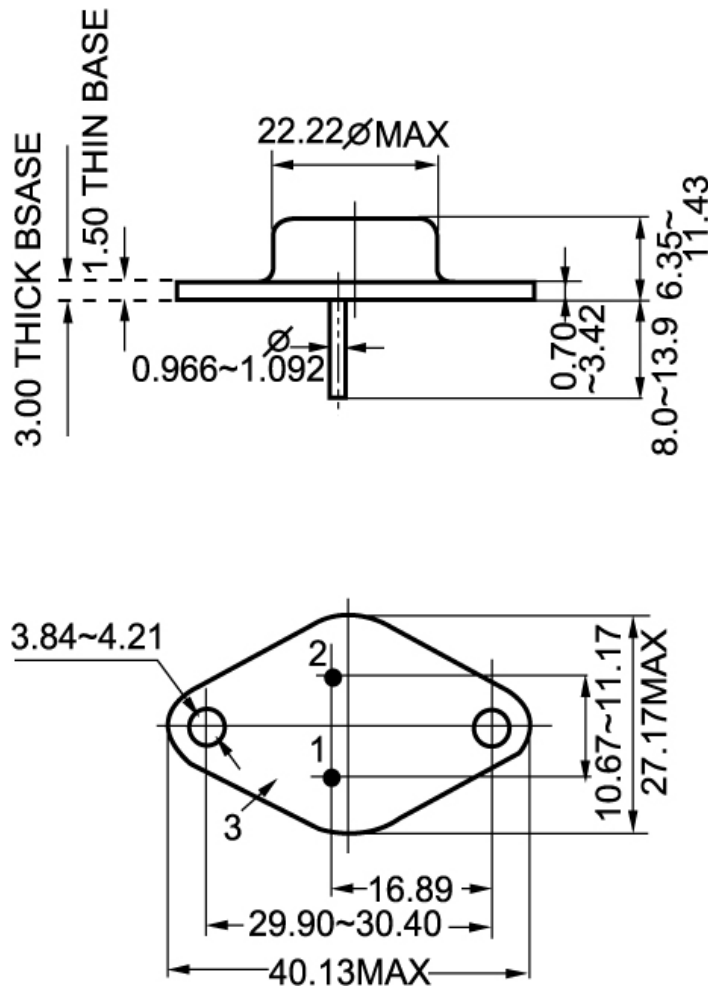


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1$ mm)