

Silicon NPN Power Transistors

2SD198

**DESCRIPTION**

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- With TO-3 package
- High breakdown voltage

**APPLICATIONS**

- voltage regulator
- Inverters
- Switching mode power supply

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

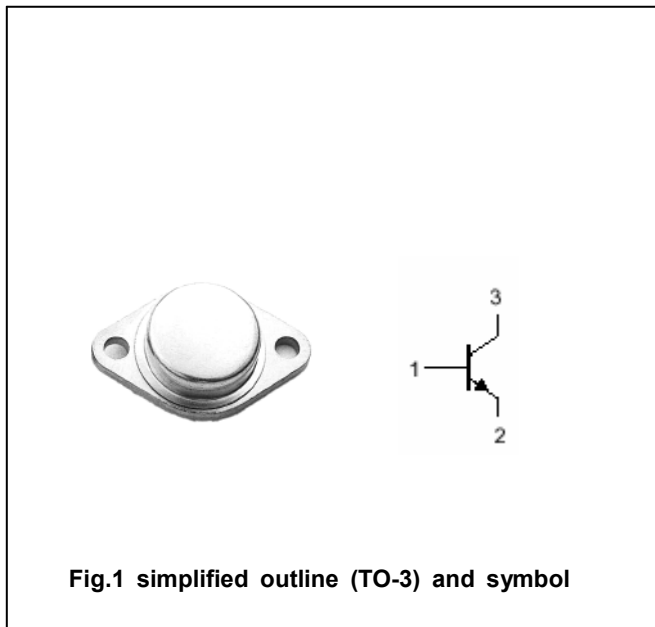


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	300	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	300	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	6	V
I <sub>C</sub>	Collector current		1	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =75□	25	W
T <sub>j</sub>	Junction temperature		165	□
T <sub>stg</sub>	Storage temperature		-55~200	□

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## CHARACTERISTICS

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

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA ; I <sub>B</sub> =0	300			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> =1.0A; I <sub>B</sub> =0.1A			1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =1.0A; I <sub>B</sub> =0.1A			1.5	V
I <sub>CB0</sub>	Collector cut-off current	V <sub>CB</sub> =300V; 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			0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =0.1A ; V <sub>CE</sub> =5V	30		300	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =10V		25		MHz

PACKAGE OUTLINE

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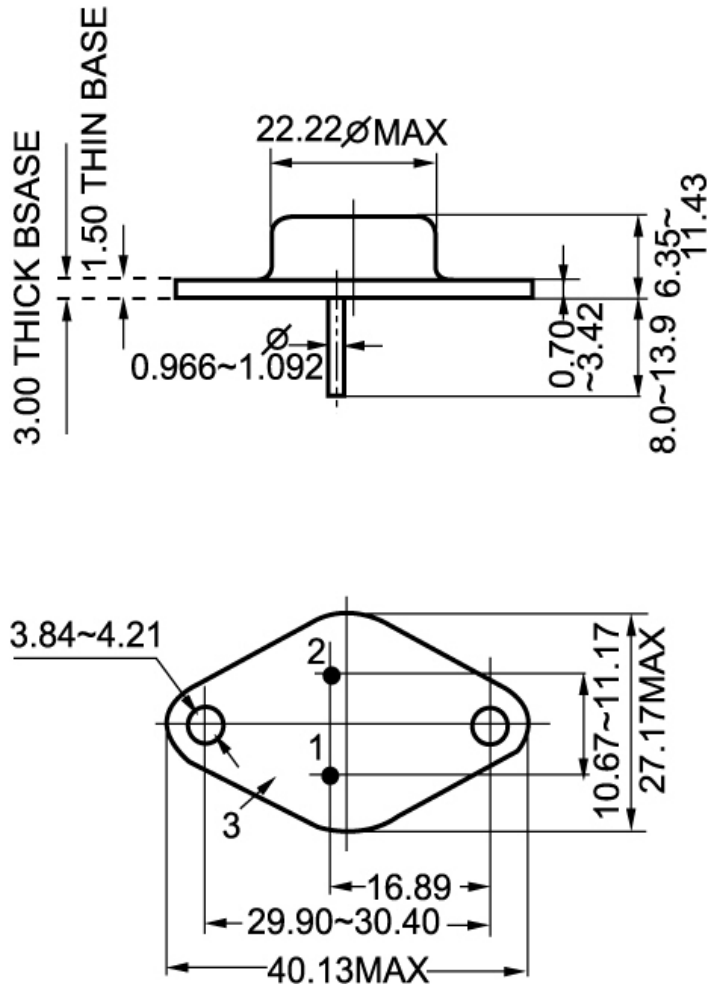


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)