

**Silicon NPN Power Transistors**

**2N5498**

**DESCRIPTION**

- With TO-3 package
- High DC current gain
- Low saturation voltage
- High Safe Operating Area

**APPLICATIONS**

- Designed for high power audio, disk head positioners and other linear applications.
- These devices can also be used in power switching circuits such as relay or solenoid drivers, DC-DC converters or inverters.

**PINNING**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

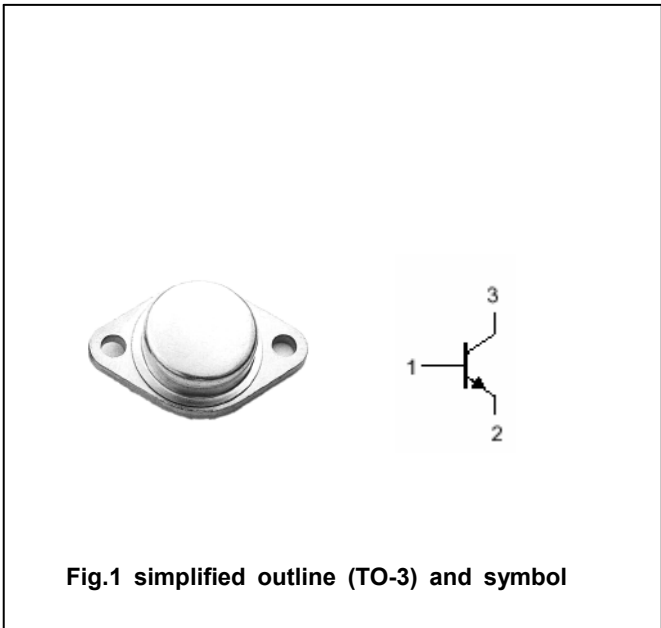


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	150	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	130	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		15	A
I <sub>B</sub>	Base current		4	A
P <sub>D</sub>	Total Power Dissipation	T <sub>C</sub> =25□	200	W
T <sub>j</sub>	Junction temperature		150	□
T <sub>stg</sub>	Storage temperature		-65~200	□

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	1.17	□/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.2A ; I <sub>B</sub> =0	130			V
V <sub>CER</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.2A ; R <sub>BE</sub> =100Ohm	150			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =8A ; I <sub>B</sub> =0.8A			1.4	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =15A ; I <sub>B</sub> =3A			4.0	V
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =130V ; I <sub>B</sub> =0			2.0	mA
I <sub>CEx</sub>	Collector cut-off current	V <sub>CE</sub> =130V ; V <sub>BE(off)</sub> =1.5V T <sub>C</sub> =150 °C			2.0 10.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V ; I <sub>C</sub> =0			1.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =15A ; V <sub>CE</sub> =5V	10		50	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =1A ; V <sub>CE</sub> =10V	1			MHz

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PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.10mm)