

**Silicon NPN Power Transistors**

**2N3448**

**DESCRIPTION**

- With TO-3 package
- Excellent Safe Operating Area

**APPLICATIONS**

- Designed for medium-switching and amplifier applications.

**PINNING**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

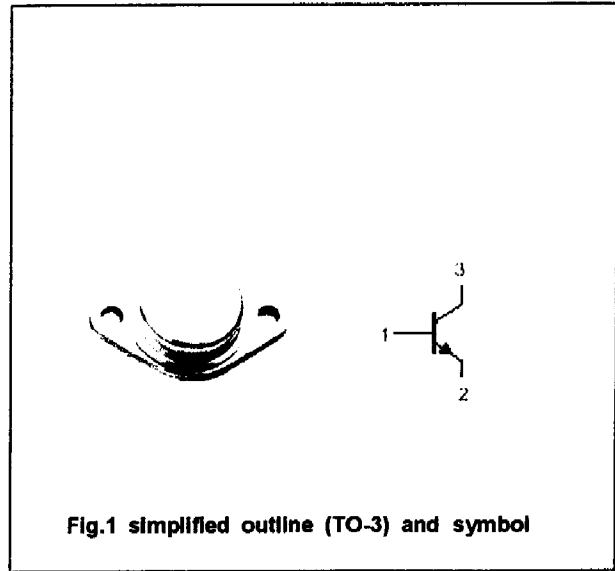


Fig.1 simplified outline (TO-3) and symbol

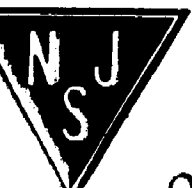
**ABSOLUTE MAXIMUM RATINGS(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	100	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	100	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		7.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	115	W
T <sub>J</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~200	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>(th)jc</sub>	Thermal resistance junction to case	1.17	°C/W

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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> =30mA ; I <sub>B</sub> =0	100			V
V <sub>CE(sat)-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =5A I <sub>B</sub> =0.5A			1.2	V
V <sub>CE(sat)-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =7A I <sub>B</sub> =1.5A			3.0	V
V <sub>BE(on)</sub>	Base-emitter on voltage	I <sub>C</sub> =5A ; V <sub>CE</sub> =5V			1.8	V
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =80V ; I <sub>B</sub> =0			0.7	mA
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =100V ; I <sub>E</sub> =0			0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V ; I <sub>C</sub> =0			0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =5A ; V <sub>CE</sub> =5V	50		120	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =10V		10		MHz

