

**Silicon NPN Power Transistors**

**MJ802**

**DESCRIPTION**

- With TO-3 package
- Complement to type MJ4502
- Excellent safe operating area

**APPLICATIONS**

- For use as an output device in complementary audio amplifiers to 100-Watts music power per channel

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

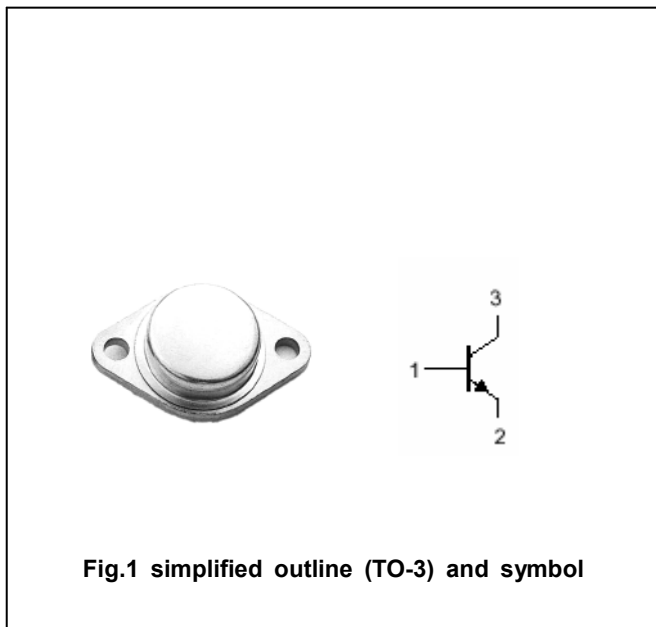


Fig.1 simplified outline (TO-3) and symbol

**ABSOLUTE MAXIMUM RATINGS( $T_c=25^\circ$ )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	100	V
$V_{CEO}$	Collector-emitter voltage	Open base	90	V
$V_{EBO}$	Emitter-base voltage	Open collector	4	V
$I_C$	Collector current		30	A
$I_B$	Base current		7.5	A
$P_C$	Collector power dissipation	$T_c=25^\circ$	200	W
$T_j$	Junction temperature		150	$^\circ$
$T_{stg}$	Storage temperature		-65~200	$^\circ$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	0.875	$^\circ/W$

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.2A ; I <sub>B</sub> =0	90			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =7.5A; I <sub>B</sub> =0.75A			0.8	V
V <sub>BE(sat)</sub>	Base-emitter saturation voltage	I <sub>C</sub> =7.5A; I <sub>B</sub> =0.75A			1.3	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =7.5A ; V <sub>CE</sub> =2V			1.3	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =100V; I <sub>E</sub> =0 T <sub>C</sub> =150°C			1.0 5.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =4V; I <sub>C</sub> =0			1.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =7.5A ; V <sub>CE</sub> =2V	25		100	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =1A ; V <sub>CE</sub> =10V; f=1.0MHz	2.0			MHz

PACKAGE OUTLINE



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