

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($T_c=25^\circ\text{C}$)

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	$T_c=25^\circ\text{C}$	200	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

T_j=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; I _B =0	90			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =7.5A; I _B =0.75A			0.8	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =7.5A; I _B =0.75A			1.3	V
V _{BE}	Base-emitter on voltage	I _C =7.5A ; V _{CE} =2V			1.3	V
I _{CBO}	Collector cut-off current	V _{CB} =100V; I _E =0 T _C =150℃			1.0 5.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =4V; I _C =0			1.0	mA
h _{FE}	DC current gain	I _C =7.5A ; V _{CE} =2V	25		100	
f _T	Transition frequency	I _C =1A ; V _{CE} =10V; f=1.0MHz	2.0			MHz

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PACKAGE OUTLINE

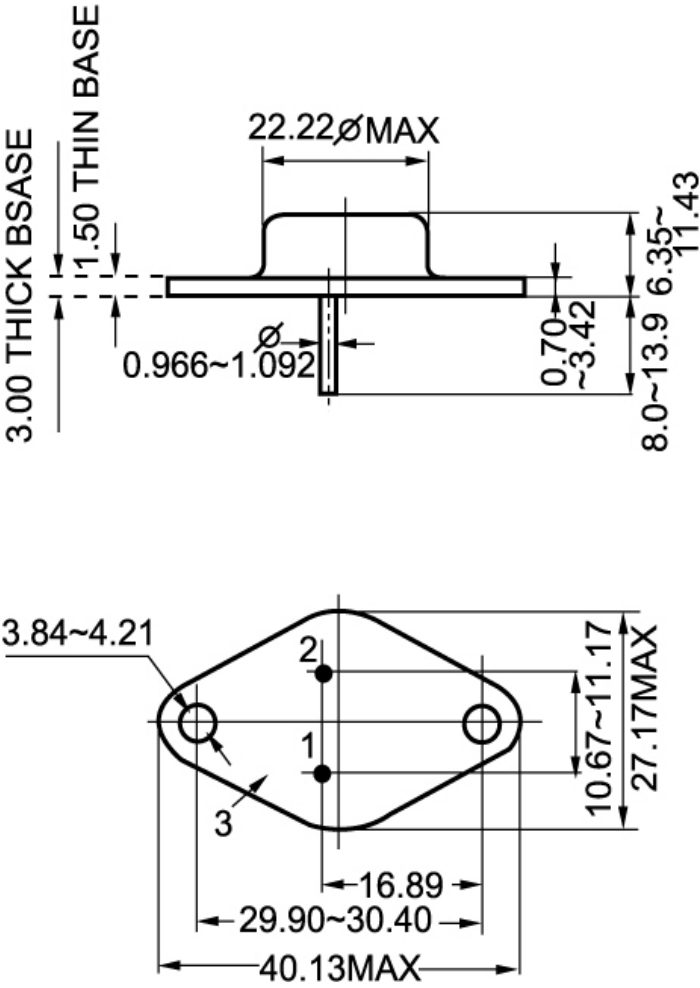


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)