

Silicon PNP Power Transistors

MJ21193

DESCRIPTION

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- With TO-3 package
- Complement to type MJ21194
- Excellent gain linearity

APPLICATIONS

- Designed for high power audio output, disk head positioners and linear applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

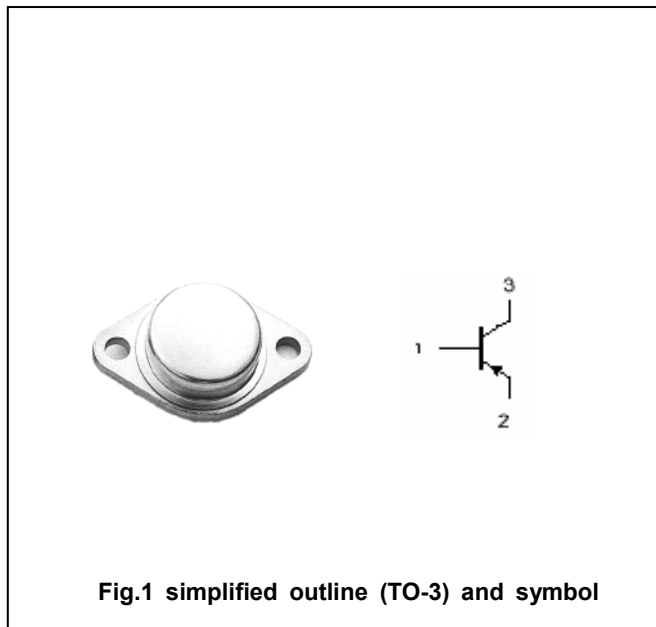


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(T_C=25□)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-400	V
V _{CEO}	Collector-emitter voltage	Open base	-250	V
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-16	A
I _{CM}	Collector current-peak		-30	A
I _B	Base current		-5	A
P _D	Total power dissipation	T _C =25□	250	W
T _j	Junction temperature		-65~200	□
T _{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th-j-c}	Thermal resistance from junction to case	0.7	□/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(SUS)}	Collector-emitter sustaining voltage	I _C =-100mA ; I _B =0	-250			V
V _{CE(sat)-1}	Collector-emitter saturation voltage	I _C =-8A; I _B =-0.8A			-1.4	V
V _{CE(sat)-2}	Collector-emitter saturation voltage	I _C =-16A; I _B =-3.2A			-4.0	V
V _{BE(ON)}	Base-emitter on voltage	I _C =-8A ; V _{CE} =-5V			-2.2	V
I _{C EX}	Collector cut-off current	V _{CE} =-250V; V _{BE(off)} =-1.5V			-100	μA
I _{CEO}	Collector cut-off current	V _{CE} =-200V; I _B =0			-100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-100	μA
h _{FE-1}	DC current gain	I _C =-8A ; V _{CE} =-5V	25		75	
h _{FE-2}	DC current gain	I _C =-16A ; V _{CE} =-5V	8			
f _T	Transition frequency	I _C =-1A ; V _{CE} =-10V,f=1MHz	4			MHz
C _{OB}	Collector output capacitance	f=1MHz;V _{CB} =-10V,I _E =0			500	pF
I _{s/b}	Second breakdown current with base forward biased	V _{CE} =-50V;t=1s(non-repetitive) V _{CE} =-80V;t=1s(non-repetitive)	-5.0 -2.5			A

PACKAGE OUTLINE

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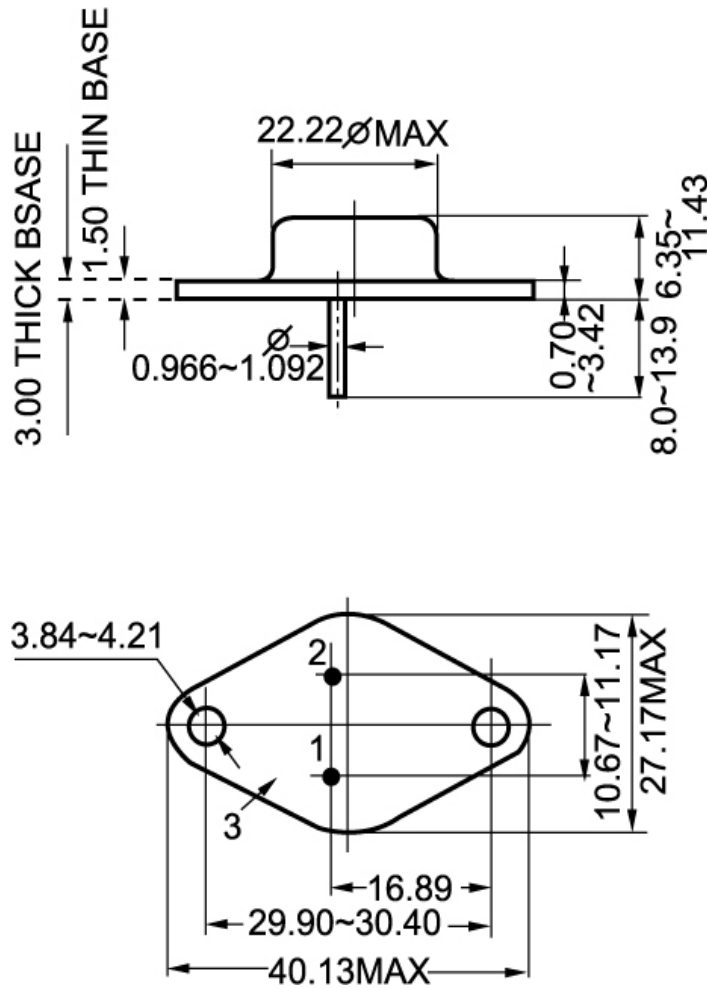


Fig.2 Outline dimensions (unindicated tolerance:±0.50 mm)