

Silicon NPN Power Transistors

MJ21194

DESCRIPTION

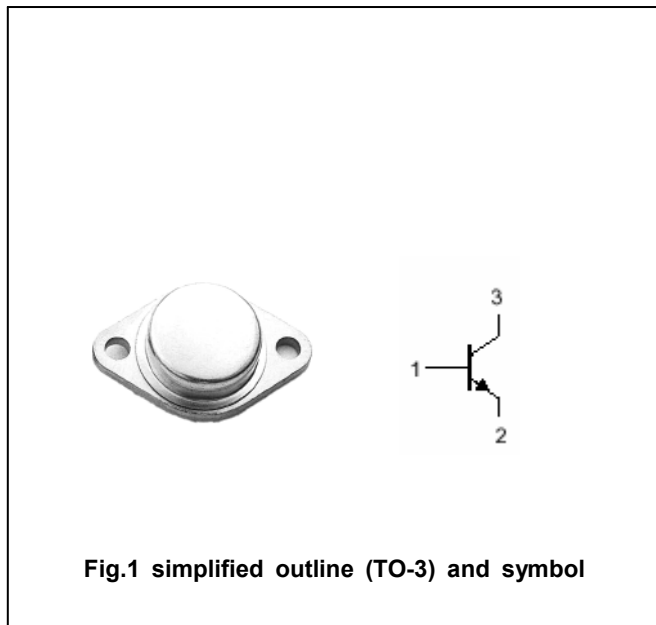
- With TO-3 package
- Complement to type MJ21193
- Excellent gain linearity

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



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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(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

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PACKAGE OUTLINE

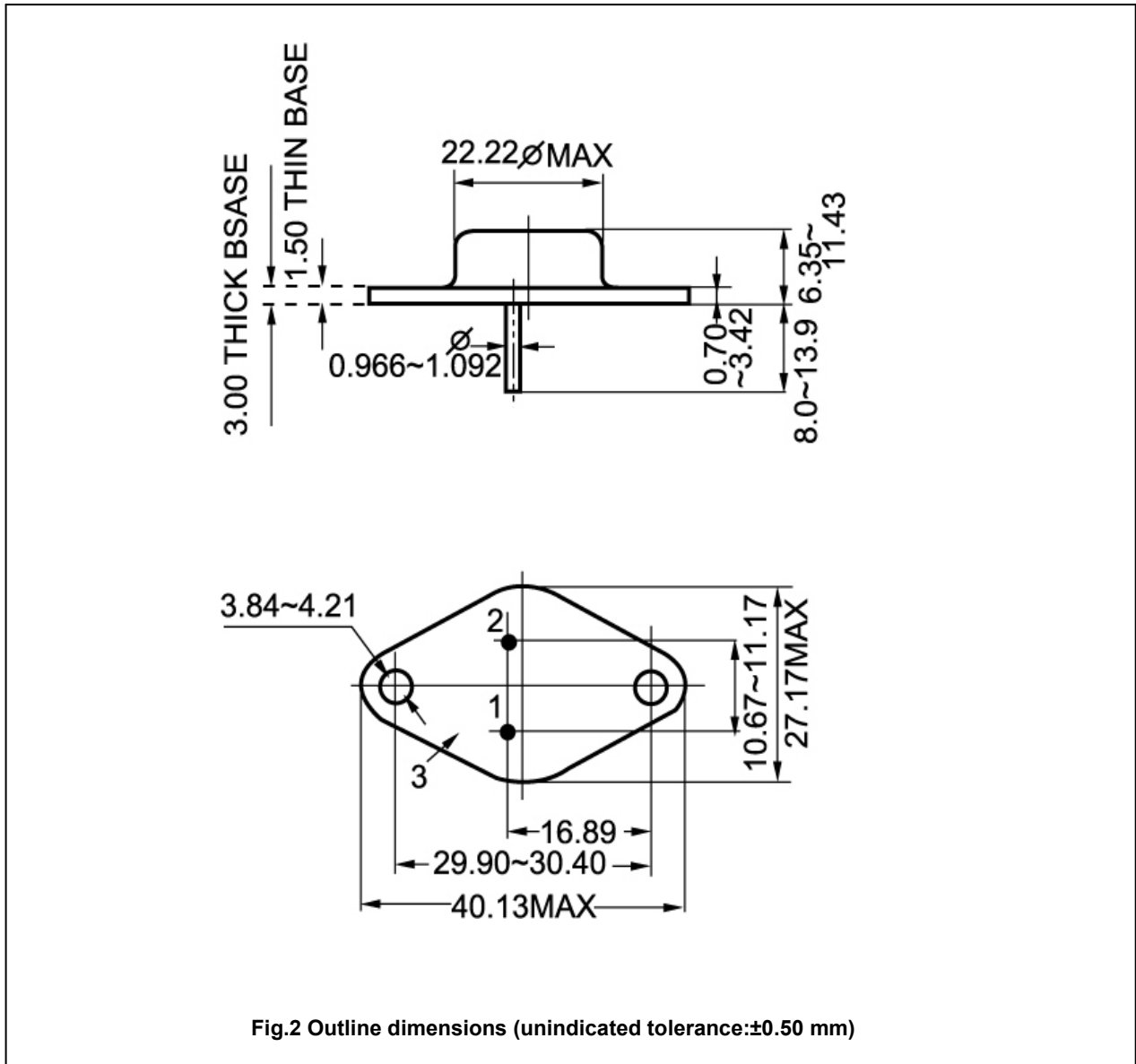


Fig.2 Outline dimensions (unindicated tolerance:±0.50 mm)