

Silicon PNP Power Transistors

MJ15004

DESCRIPTION

- With TO-3 package
- Complement to type MJ15003
- Excellent safe operating area

APPLICATIONS

- For high power audio, disk head positioners and other linear applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

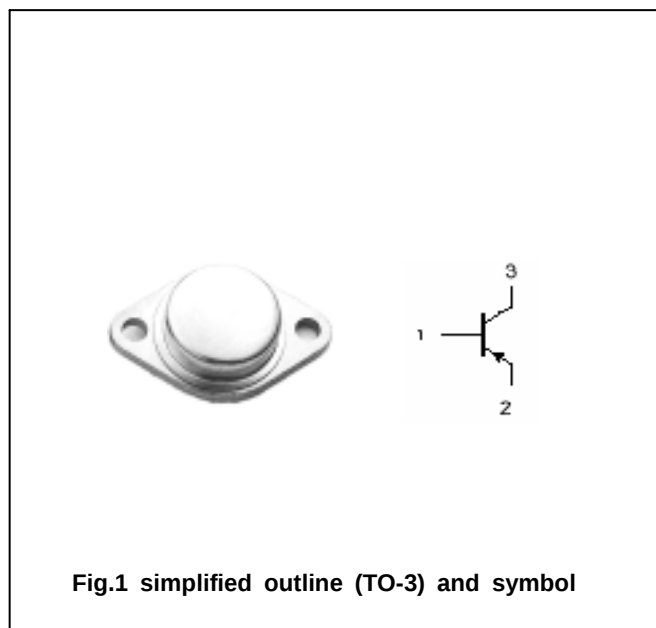


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-140	V
V_{CEO}	Collector-emitter voltage	Open base	-140	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-20	A
I_B	Base current		-5	A
I_E	Emitter current		25	A
P_D	Total power dissipation	$T_C = 25$	250	W
T_j	Junction temperature		200	
T_{stg}	Storage temperature		-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	0.7	/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	-140			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-5A; I _B =-0.5A			-1.0	V
V _{BE}	Base-emitter on voltage	I _C =-5A ; V _{CE} =-2V			-2.0	V
I _{CEO}	Collector cut-off current	V _{CE} =-140V; I _B =0			-0.25	mA
I _{CEX}	Collector cut-off current	V _{CE} =-140V; V _{BE(off)} =-1.5V T _C =150			-0.1 -2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-0.1	mA
h _{FE}	DC current gain	I _C =-5A ; V _{CE} =-2V	25		150	
I _{S/b}	Second breakdown collector current With base forward biased	V _{CE} =-50Vdc, t=1 s, Nonrepetitive	-5			A
		V _{CE} =-100Vdc, t=1 s, Nonrepetitive	-1			
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =-10V; f=1.0MHz			1000	pF
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-10V; f=0.5MHz	2			MHz

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PACKAGE OUTLINE

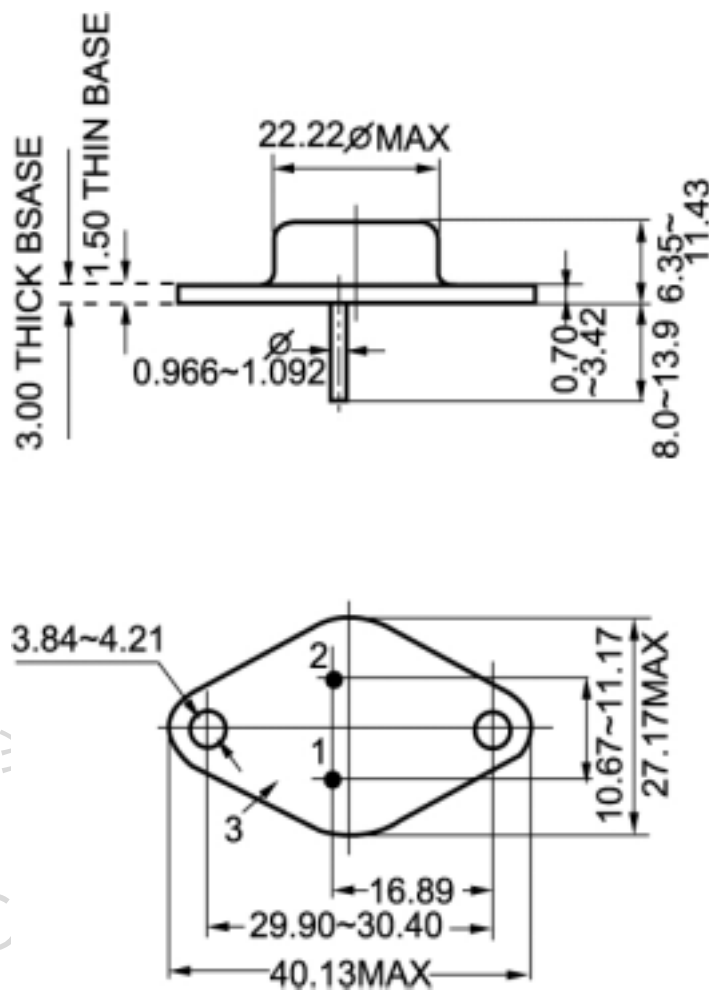


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)