SPTECH Silicon NPN Power Transistors MJ15001

DESCRIPTION

- With TO-3 package
- Complement to type MJ15002
- Wide area of safe operation

APPLICATIONS

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



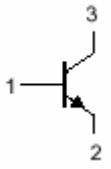


Fig.1 simplified outline (TO-3) and symbol

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings(Ta=℃)

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		15	A
I_B	Base current		5	A
I_E	Emitter current		-20	A
P_D	Total power dissipation	T_C=25℃	200	W
T_j	Junction temperature		200	℃
T_{stg}	Storage temperature		-65~200	℃

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	I_C=0.2A ;I_B=0	140			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=4A; I_B=0.4A			1.0	V
V_{BE}	Base-emitter on voltage	I_C=4A ; 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=4A ; V_{CE}=2V	25		150	
$I_{s/b}$	Second breakdown collector current With base forward biased	V_{CE}=40Vdc,t=1s, Nonrepetitive	5			A
		V_{CE}=100Vdc,t=1s, Nonrepetitive	0.5			
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

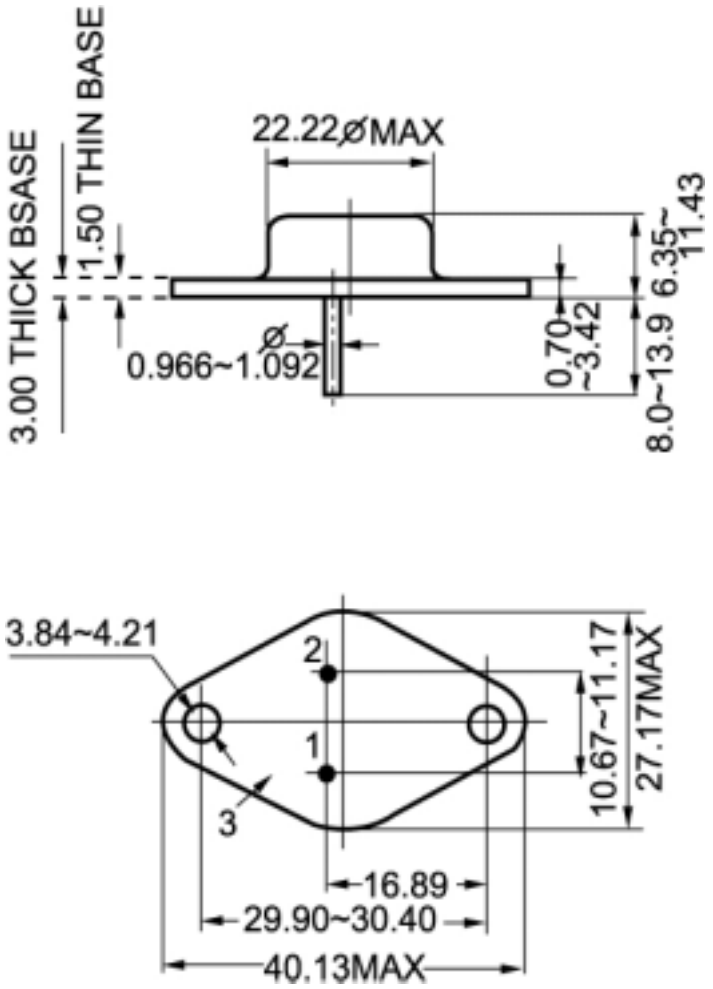


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)