SPTECH Silicon NPN Power Transistors

DESCRIPTION

- With TO-220F package
- Complement to type 2SA1837
- High transition frequency

APPLICATIONS

- Power amplifier applications
- Driver stage amplifier applications

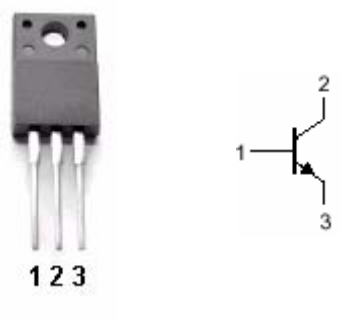


Fig.1 simplified outline (TO-220F) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	230	V
V_{CEO}	Collector-emitter voltage	Open base	230	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		1	A
I_B	Base current		0.1	A
P_C	Collector dissipation	T_C=25℃	20	W
		T_a=25℃	2.0	
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=10mA ; I_B=0	230			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=0.5A I_B=50mA			1.5	V
V_{BE}	Base-emitter voltage	I_C=0.5A ; V_{CE}=5V			1.0	V
I_{CBO}	Collector cut-off current	V_{CB}=230V; I_E=0			1.0	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			1.0	μA
h_{FE}	DC current gain	I_C=0.1A ; V_{CE}=5V	100		320	
C_{OB}	Output capacitance	I_E=0; V_{CB}=10V;f=1MHz		20		pF
f_T	Transition frequency	I_C=0.1A ; V_{CE}=10V		100		MHz

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PACKAGE OUTLINE

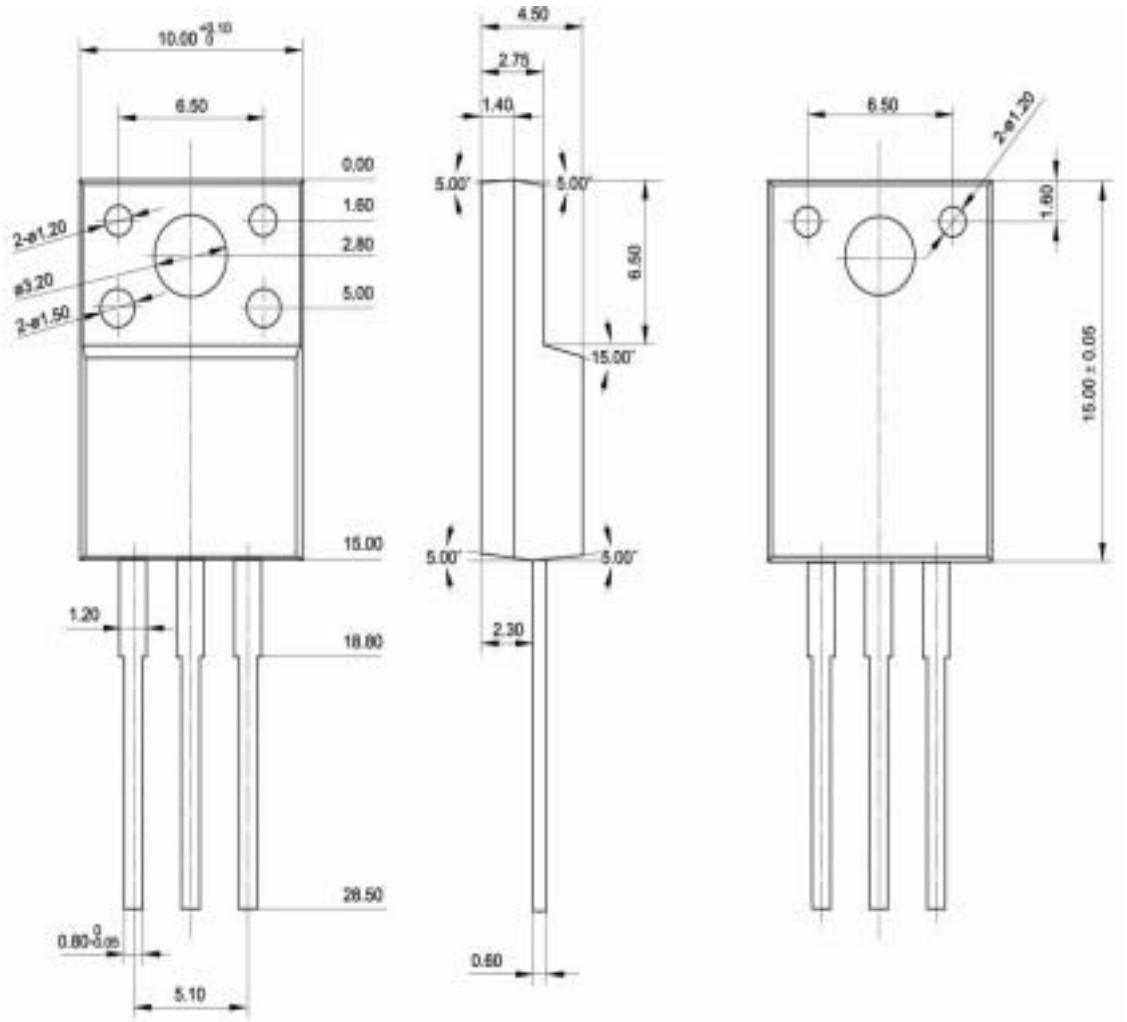


Fig.2 Outline dimensions