

Silicon PNP Power Transistors

2SB1375

DESCRIPTION

- With TO-220F package
- Complement to type 2SD2012
- Low collector saturation voltage:
 $V_{CE(SAT)}=-1.5V(\text{Max})$ at $I_C=-2A, I_B=-0.2A$
- Collector power dissipation:
 $P_C=25W(T_C=25\text{ }^{\circ}\text{C})$

APPLICATIONS

- Audio frequency power amplifier

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

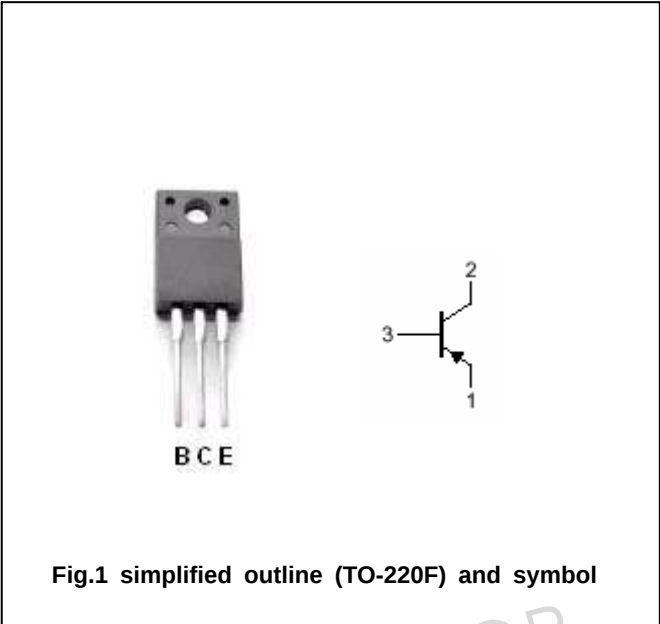


Fig.1 simplified outline (TO-220F) and symbol

Absolute maximum ratings ($T_a=25\text{ }^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-60	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-3	A
I_B	Base current		-0.5	A
P_C	Collector dissipation	$T_a=25$	2.0	W
		$T_C=25$	25	
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	$I_C = -50mA ; I_B = 0$	-60			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C = -2A ; I_B = -0.2A$		-1.0	-1.5	V
V_{BE}	Base-emitter voltage	$I_C = -0.5A ; V_{CE} = -5V$		-0.75	-1.0	V
I_{CBO}	Collector cut-off current	$V_{CB} = -60V ; I_E = 0$			-10	μA
I_{EBO}	Emitter cut-off current	$V_{EB} = -7V ; I_C = 0$			-10	μA
h_{FE-1}	DC current gain	$I_C = -0.5A ; V_{CE} = -5V$	100		320	
h_{FE-2}	DC current gain	$I_C = -2A ; V_{CE} = -5V$	15			
f_T	Transition frequency	$I_C = -0.5A ; V_{CE} = -5V$		9		MHz
C_{OB}	Collector output capacitance	$I_E = 0 ; f = 1MHz ; V_{CB} = -10V$		50		pF

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PACKAGE OUTLINE

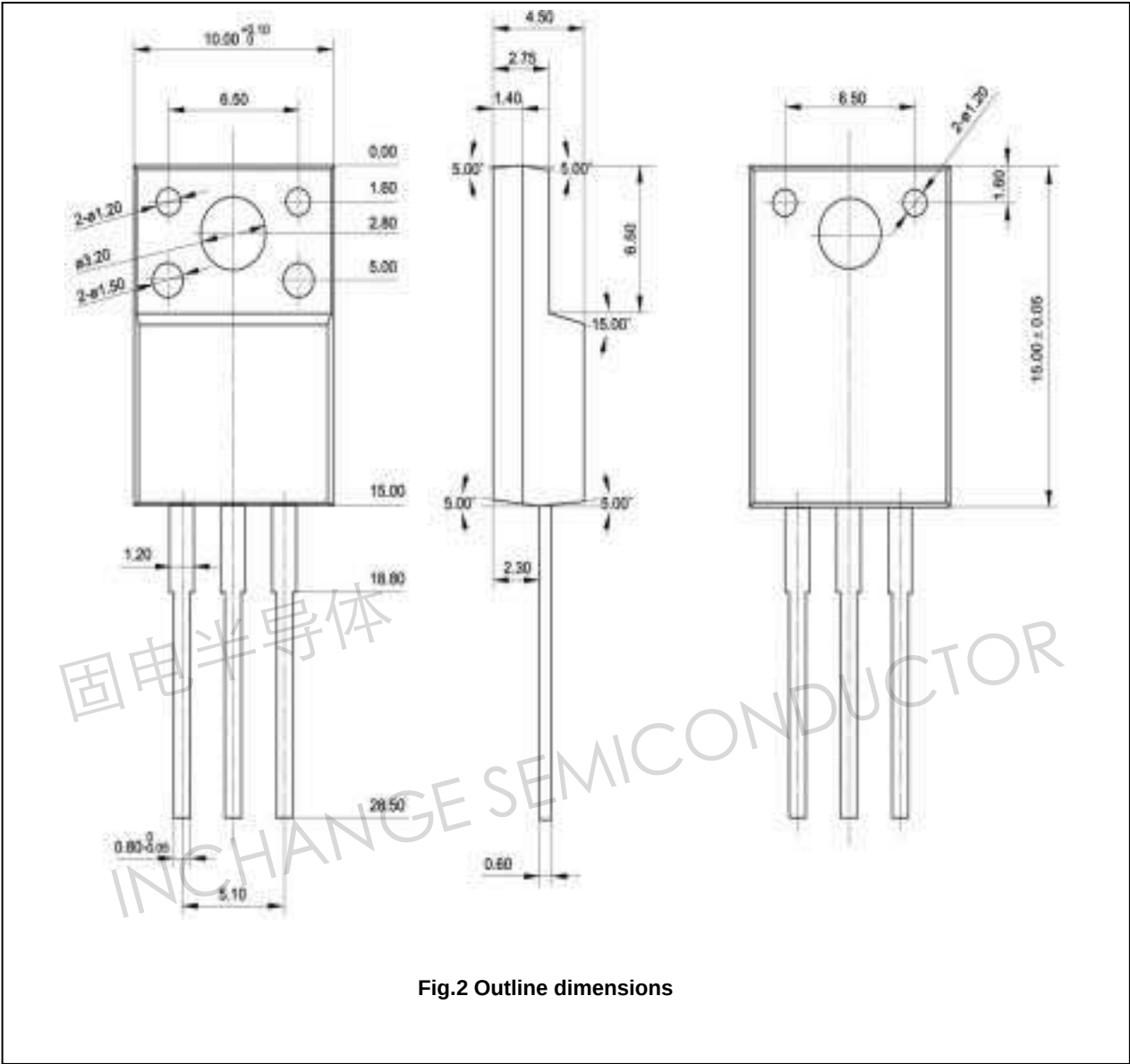


Fig.2 Outline dimensions

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