

Silicon PNP Power Transistors

2SB1375

DESCRIPTION

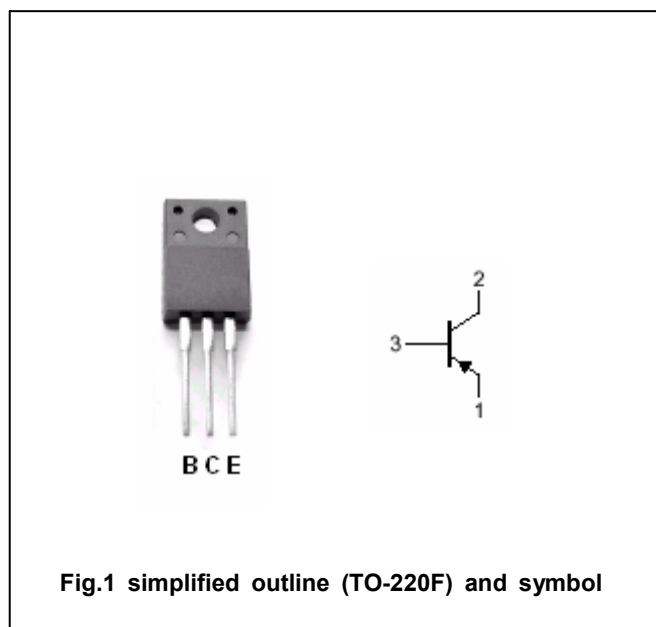
- With TO-220F package
- Complement to type 2SD2012
- Low collector saturation voltage:
 $V_{CE(SAT)} = -1.5V(\text{Max})$ at $I_C = -2A, I_B = -0.2A$
- Collector power dissipation:
 $P_C = 25W(T_C = 25^\circ\text{C})$

APPLICATIONS

- Audio frequency power amplifier

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

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

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	$T_a = 25^\circ\text{C}$	2.0	W
		$T_C = 25^\circ\text{C}$	25	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C 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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Technical drawing showing the outline dimensions of a vertical component, likely a probe or sensor assembly, in three views: Front View, Side View, and Top View.

Front View Dimensions:

- Overall Width: 10.00 (+0.10/0)
- Overall Height: 15.00
- Top Section Width: 6.50
- Top Section Height: 5.00
- Central Circular Feature Diameter: $\phi 3.20$
- Four Small Circular Features: 2- $\phi 1.20$ (top) and 2- $\phi 1.50$ (bottom)
- Bottom Section Width: 5.10
- Bottom Section Height: 18.80
- Bottom Section Width (Inner): 0.80 (0/0.05)

Side View Dimensions:

- Overall Width: 4.50
- Overall Height: 15.00
- Top Section Width: 2.75
- Top Section Height: 5.00
- Central Circular Feature Diameter: $\phi 3.20$
- Four Small Circular Features: 2- $\phi 1.20$ (top) and 2- $\phi 1.50$ (bottom)
- Bottom Section Width: 2.30
- Bottom Section Height: 18.80
- Bottom Section Width (Inner): 0.60

Top View Dimensions:

- Overall Width: 6.50
- Overall Height: 15.00 ± 0.05
- Top Section Width: 6.50
- Top Section Height: 1.60
- Central Circular Feature Diameter: $\phi 3.20$
- Four Small Circular Features: 2- $\phi 1.20$ (top) and 2- $\phi 1.50$ (bottom)

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