

Silicon PNP Power Transistors

2SB1158

DESCRIPTION

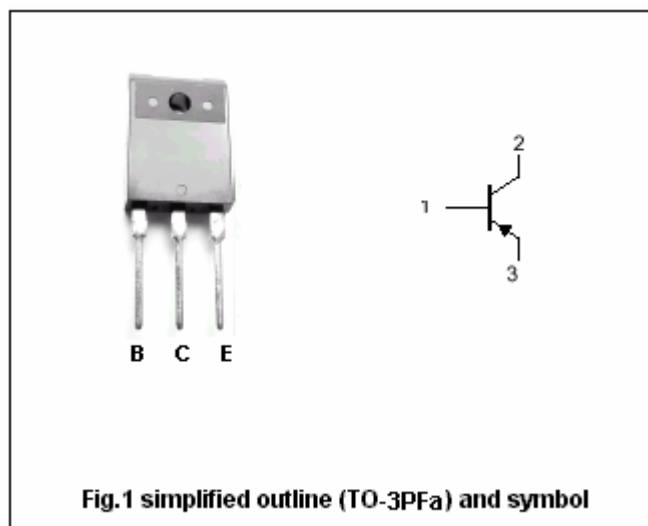
- With TO-3PFa package
- Complement to type 2SD1713
- High f_T
- Wide area of safe operation

APPLICATIONS

- For high power amplifier applications

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	-120	V
V_{CEO}	Collector-emitter voltage	Open base	-120	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-6	A
I_{CP}	Collector current-peak		-10	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	70	W
		$T_a=25^\circ\text{C}$	3	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =-4A ; I _B =-0.4A			-2.0	V
V _{BE}	Base-emitter on voltage	I _C =-4A ; V _{CE} =-5V			-1.8	V
I _{CBO}	Collector cut-off current	V _{CB} =-120V; I _E =0			-50	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =-3V; I _C =0			-50	μ A
h _{FE-1}	DC current gain	I _C =-20mA ; V _{CE} =-5V	20			
h _{FE-2}	DC current gain	I _C =-1A ; V _{CE} =-5V	60		200	
h _{FE-3}	DC current gain	I _C =-4A ; V _{CE} =-5V	20			
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =-10V; f=1MHz		180		pF
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-5V		20		MHz

◆ h_{FE-2} classifications

Q	S	P
60-120	80-160	100-200

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Technical drawing of a mechanical part, likely a mold component, showing three views: front, side, and bottom. The drawing includes numerous dimensions in millimeters and degrees.

Front View Dimensions:

- Overall width: 15.00
- Top width: 9.00
- Top thickness: 5.80
- Side thickness: 3.10
- Bottom thickness: 2.70
- Central hole diameter: $\varnothing 3.000$
- Three smaller holes: $3 \times \varnothing 1.500$ (textured)
- Bottom hole diameter: $\varnothing 1.500$
- Bottom hole position: 13.30 (from bottom), 15.20 (from center)
- Side hole position: 19.20 (from bottom)
- Side hole diameter: $\varnothing 1.500$
- Side hole thickness: 2.000
- Side hole width: 1.000
- Side hole angle: 45.000°
- Side hole bottom angle: 15.000°
- Side hole bottom radius: 31.15
- Side hole bottom height: 31.90

Side View Dimensions:

- Overall height: 5.00
- Top thickness: 3.30
- Side thickness: 2.00
- Side hole position: 3.000 (from top), 3.000 (from bottom)
- Side hole diameter: $\varnothing 1.500$
- Side hole width: 0.600

Bottom View Dimensions:

- Overall width: 10.900
- Overall height: 1.100
- Top width: 5.000
- Top height: 0.600
- Side hole position: 5.000 (from left), 5.000 (from right)
- Side hole diameter: $\varnothing 1.500$
- Side hole width: 2.014
- Side hole height: 4.500

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