

Silicon PNP Power Transistors

2SB1156

DESCRIPTION

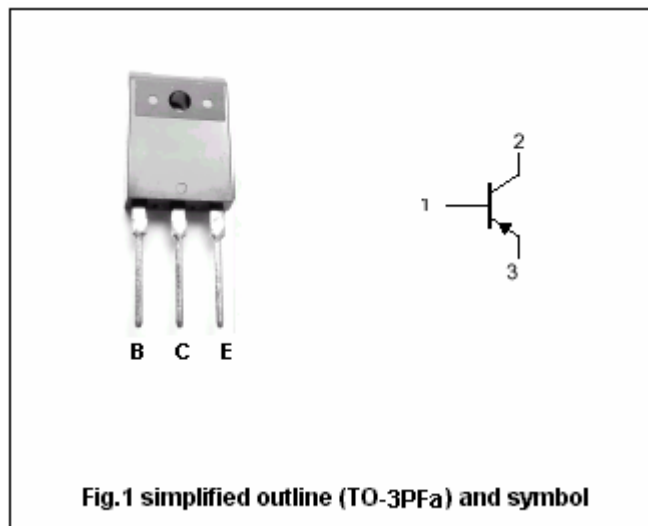
- With TO-3PFa package
- Complement to type 2SD1707
- Low collector saturation voltage
- Large collector current

APPLICATIONS

- For power switching 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	-130	V
V_{CEO}	Collector-emitter voltage	Open base	-80	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-20	A
I_{CM}	Collector current-peak		-30	A
P_C	Collector power dissipation	$T_a=25^{\circ}\text{C}$	3	W
		$T_C=25^{\circ}\text{C}$	100	
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 _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-10mA ; I _B =0	-80			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =-8A ; I _B =-0.4A			-0.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-20A ; I _B =-2A			-1.5	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =-8A ; I _B =-0.4A			-1.5	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =-20A ; I _B =-2A			-2.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-100V; I _E =0			-10	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-50	μA
h _{FE-1}	DC current gain	I _C =-0.1A ; V _{CE} =-2V	45			
h _{FE-2}	DC current gain	I _C =-3A ; V _{CE} =-2V	60		260	
h _{FE-3}	DC current gain	I _C =-10A ; V _{CE} =-2V	30			
f _T	Transition frequency	I _C =-0.5A ; V _{CE} =-10V		25		MHz

Switching times

t _{on}	Turn-on time	V _{CC} =-50V; I _C =-3A; I _{B1} =-0.8A, I _{B2} =0.8A		0.5		μs
t _{stg}	Storage time			1.2		μs
t _f	Fall time			0.2		μs

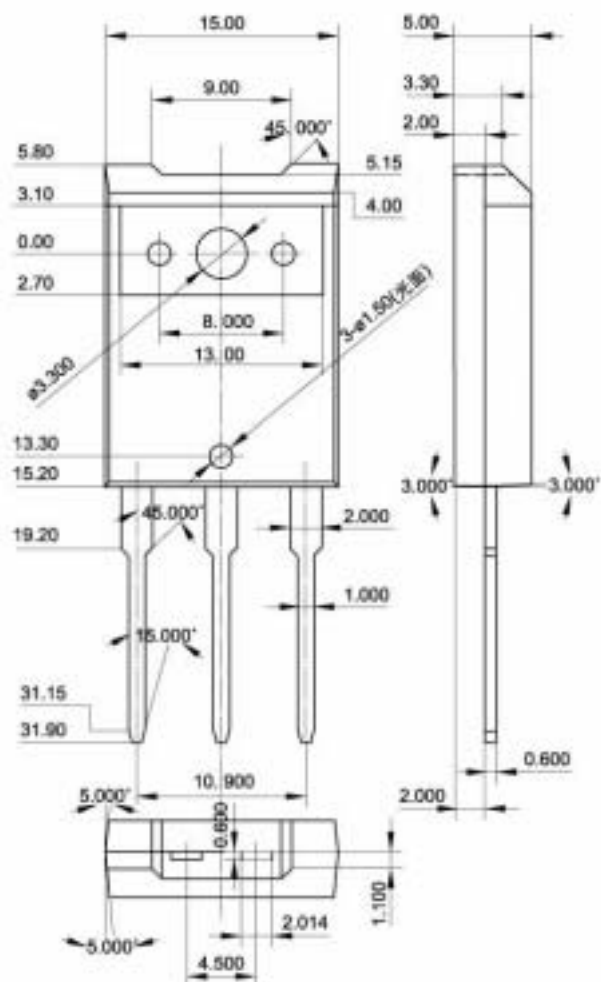
◆ h_{FE-2} classifications

R	Q	P
60-120	90-180	130-260

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PACKAGE OUTLINE

Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.30\text{mm}$)