

Silicon PNP Power Transistors

2SA1142

DESCRIPTION

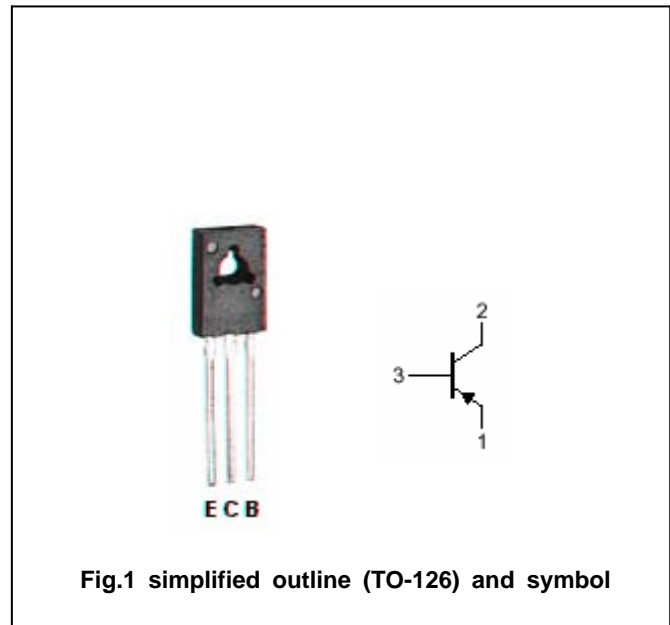
- With TO-126 package
- Complement to type 2SC2682

APPLICATIONS

- Audio frequency power amplifier; high frequency power amplifier applications

PINNING

PIN	DESCRIPTION
1	Emitter
2	Collector;connected to mounting base
3	Base

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-180	V
V_{CEO}	Collector-emitter voltage	Open base	-180	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-0.1	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	1.2	W
		$T_C=25^\circ\text{C}$	8	
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 =-50mA; I _B =-5mA		-0.16	-0.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-50mA; I _B =-5mA		-0.8	-1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-180V; I _E =0			-1	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =-3V; I _C =0			-1	μ A
h _{FE-1}	DC current gain	I _C =-1mA; V _{CE} =-5V	90	200		
h _{FE-2}	DC current gain	I _C =-10mA; V _{CE} =-5V	100	200	320	
f _T	Transition frequency	I _C =-20mA; V _{CE} =-10V		180		MHz
C _{ob}	Output capacitance	I _E =0; V _{CB} =-10V; f=1MHz		4.5		pF

◆ h_{FE-2} Classifications

O	Y
100-200	160-320

