

Silicon PNP Power Transistors

2SA1006 2SA1006A 2SA1006B

DESCRIPTION

- With TO-220 package
- Complement to type 2SC2336, 2SC2336A, 2SC2336B

APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

PINNING

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

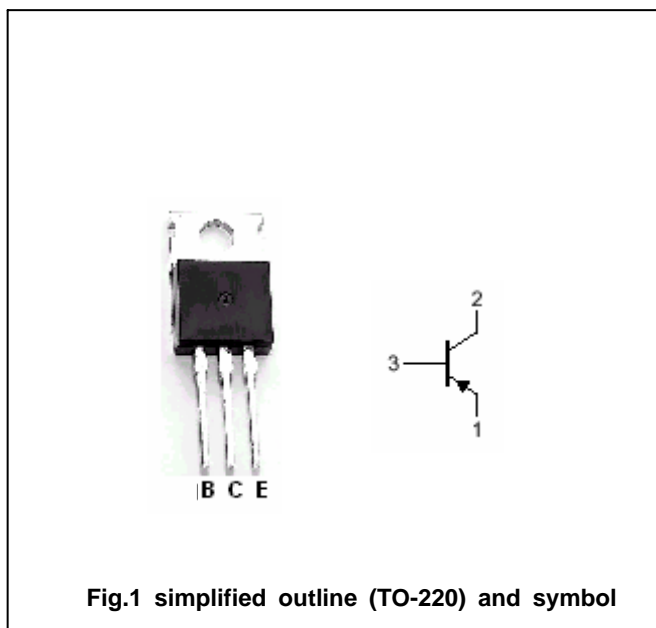


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SA1006	-180	V
		2SA1006A	-200	
		2SA1006B	-250	
V _{CEO}	Collector-emitter voltage	2SA1006	-180	V
		2SA1006A	-200	
		2SA1006B	-250	
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-1.5	A
I _{CM}	Collector current-Peak		-3.0	A
P _T	Total power dissipation	T _a =25	1.5	W
		T _C =25	25	
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =-0.5A; I _B =-50mA			-1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-0.5A; I _B =-50mA			-1.5	V
I _{CB0}	Collector cut-off current	V _{CB} =-150V; I _E =0			-1	μA
I _{EB0}	Emitter cut-off current	V _{EB} =-3V; I _C =0			-1	μA
h _{FE-1}	DC current gain	I _C =-5mA; V _{CE} =-5V	30			
h _{FE-2}	DC current gain	I _C =-150mA; V _{CE} =-5V	60		320	
C _{ob}	Output capacitance	I _E =0; V _{CB} =-10V, f=1MHz		45		pF
f _T	Transition frequency	I _C =-100mA; V _{CE} =10V		80		MHz

◆ h_{FE-2} Classifications

R	Q	P
60-120	100-200	160-320

PACKAGE OUTLINE

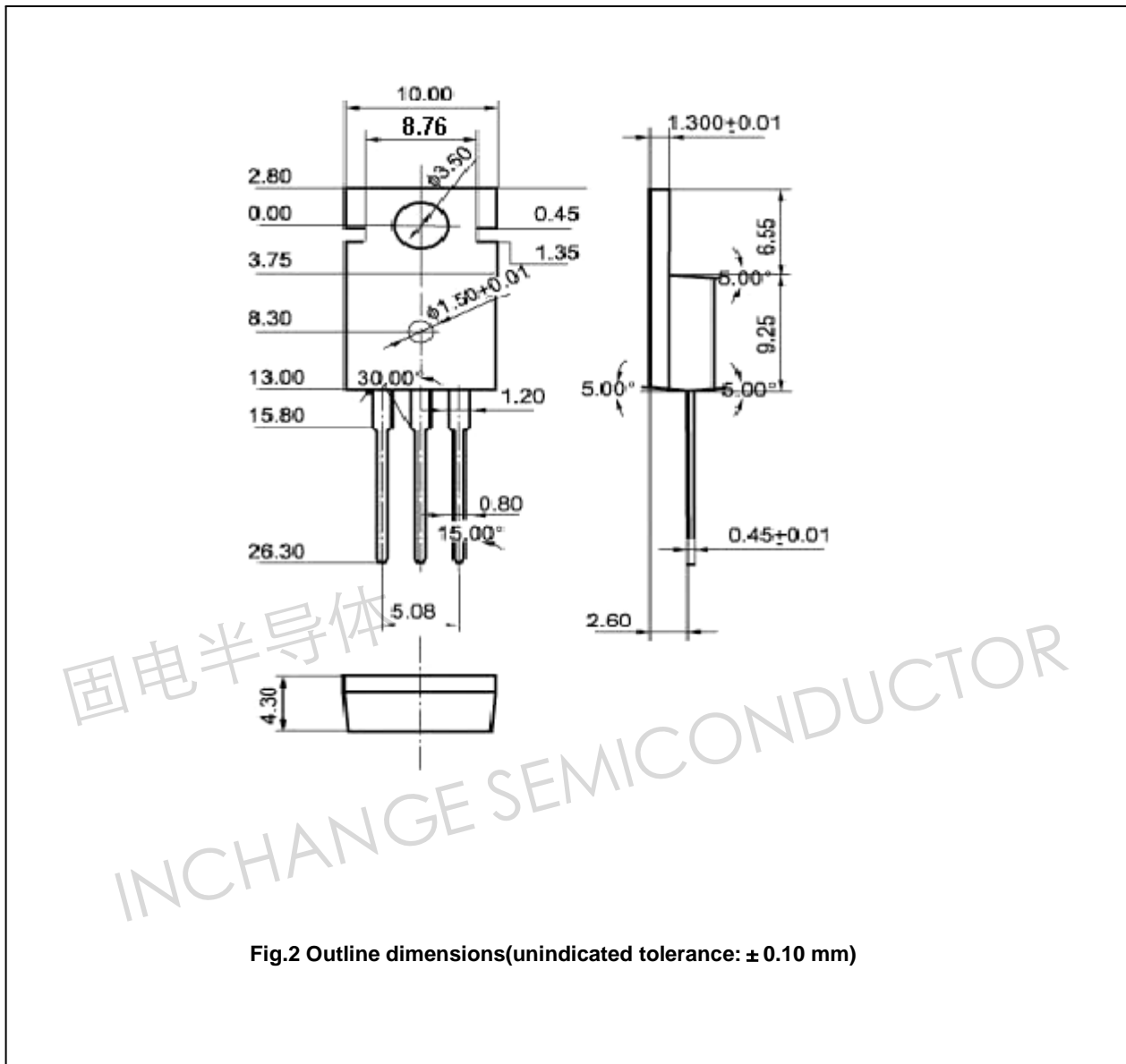


Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)

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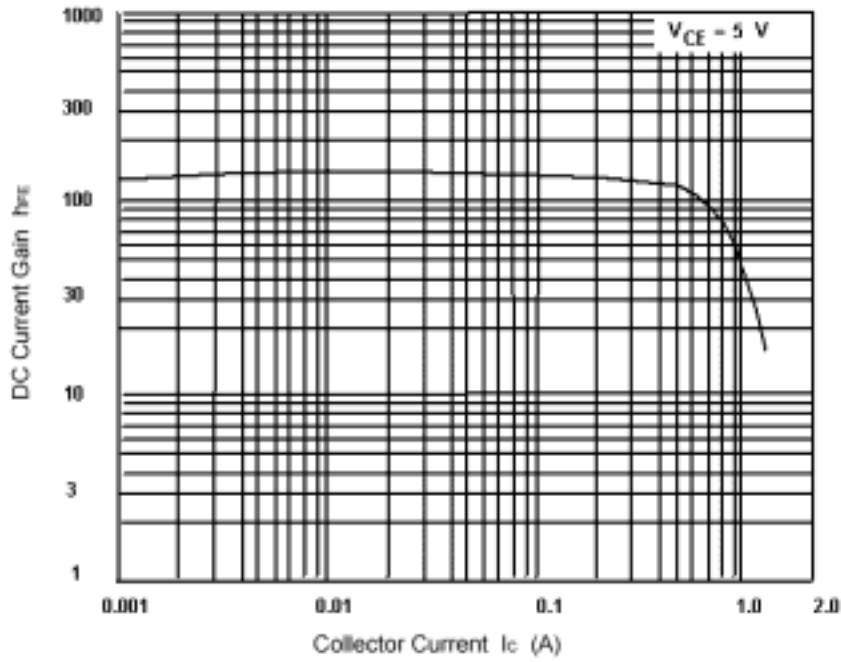


Fig.3 DC current Gain

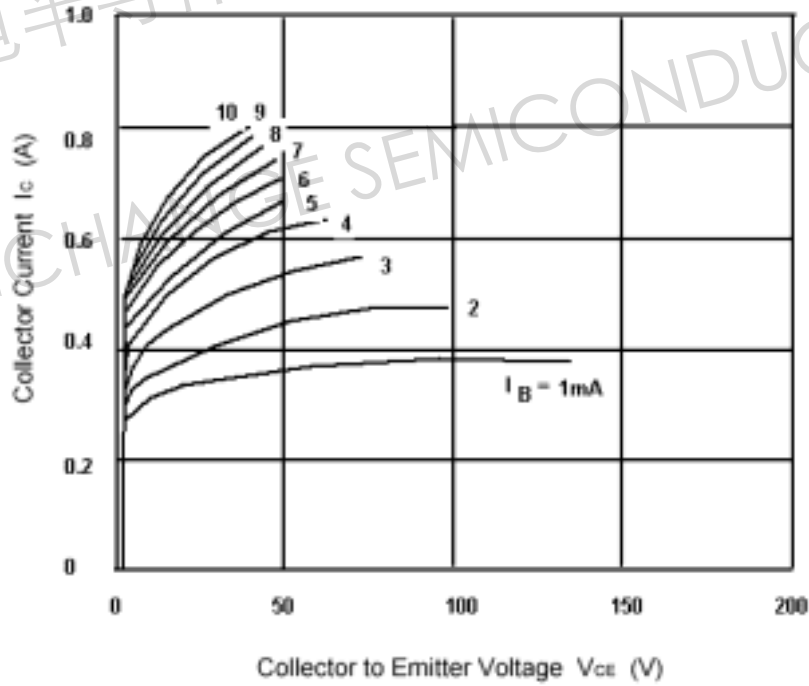


Fig.4 Static Characteristic

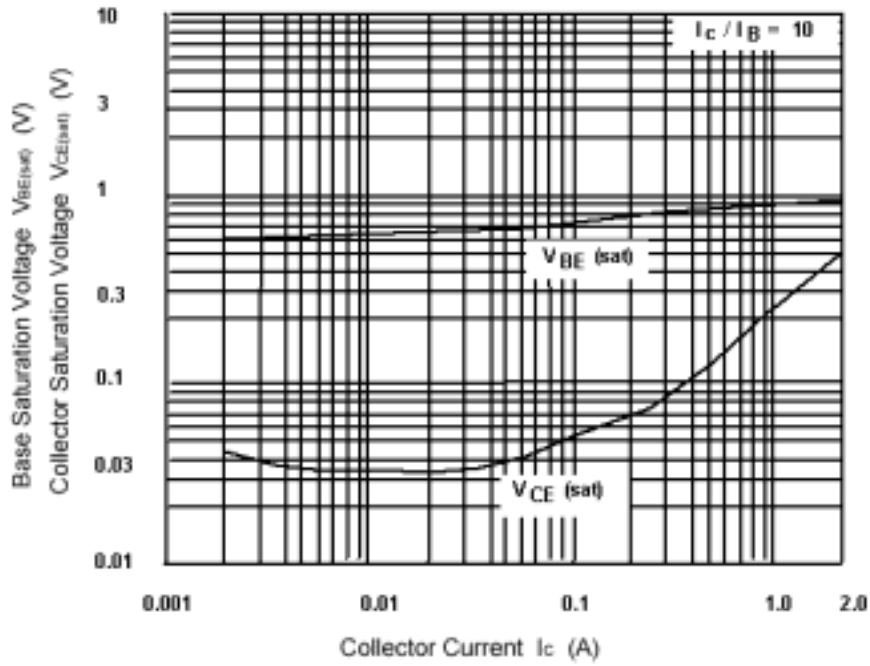


Fig.5 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

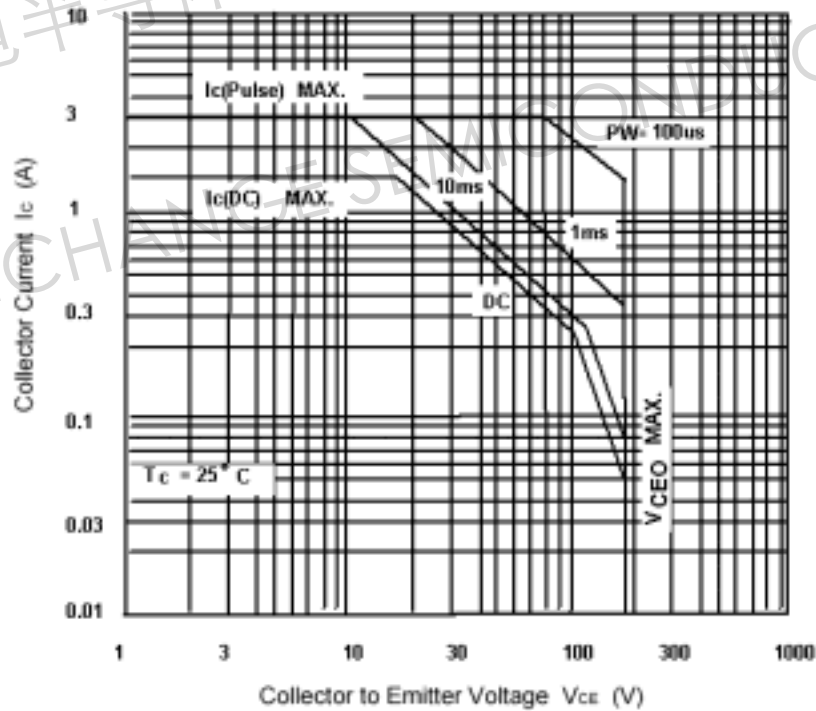


Fig.6 Safe Operating Area