

**Silicon NPN Power Transistors**

**2SC2336 2SC2336A 2SC2336B**

**DESCRIPTION**

- With TO-220 package
- Complement to type 2SA1006, 2SA1006A,2SA1006B

**APPLICATIONS**

- Audio frequency power amplifier
- High frequency power amplifier

**PINNING**

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

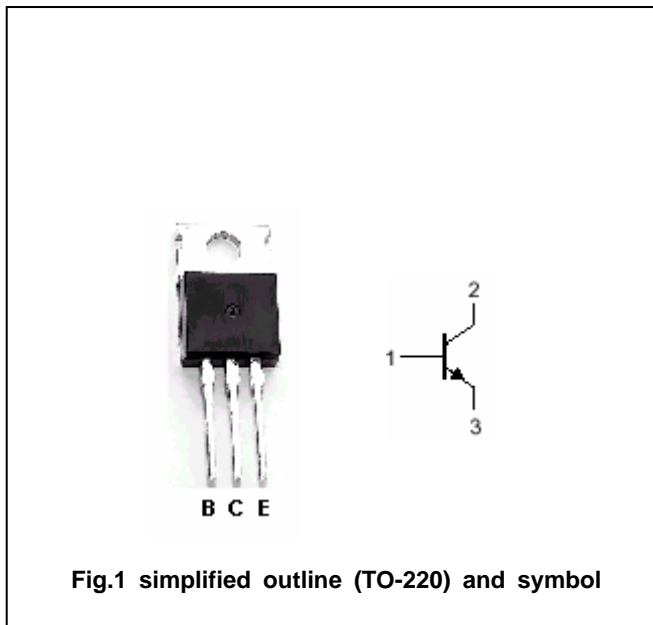


Fig.1 simplified outline (TO-220) and symbol

**Absolute maximum ratings(Ta=25 )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2SC2336	180	V
		2SC2336A	200	
		2SC2336B	250	
V <sub>CEO</sub>	Collector-emitter voltage	2SC2336	180	V
		2SC2336A	200	
		2SC2336B	250	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		1.5	A
I <sub>CM</sub>	Collector current-peak		3.0	A
P <sub>T</sub>	Total power dissipation	T <sub>a</sub> =25	1.5	W
		T <sub>C</sub> =25	25	
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	Storage temperature		-55~150	

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =0.5A; I <sub>B</sub> =50mA			1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =0.5A; I <sub>B</sub> =50mA			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =150V; I <sub>E</sub> =0			1	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =3V; I <sub>C</sub> =0			1	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =5mA; V <sub>CE</sub> =5V	30			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =150mA; V <sub>CE</sub> =5V	60		320	
C <sub>ob</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =10V, f=1MHz		30		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =100mA; V <sub>CE</sub> =10V		95		MHz

◆ h<sub>FE-2</sub> Classifications

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

PACKAGE OUTLINE

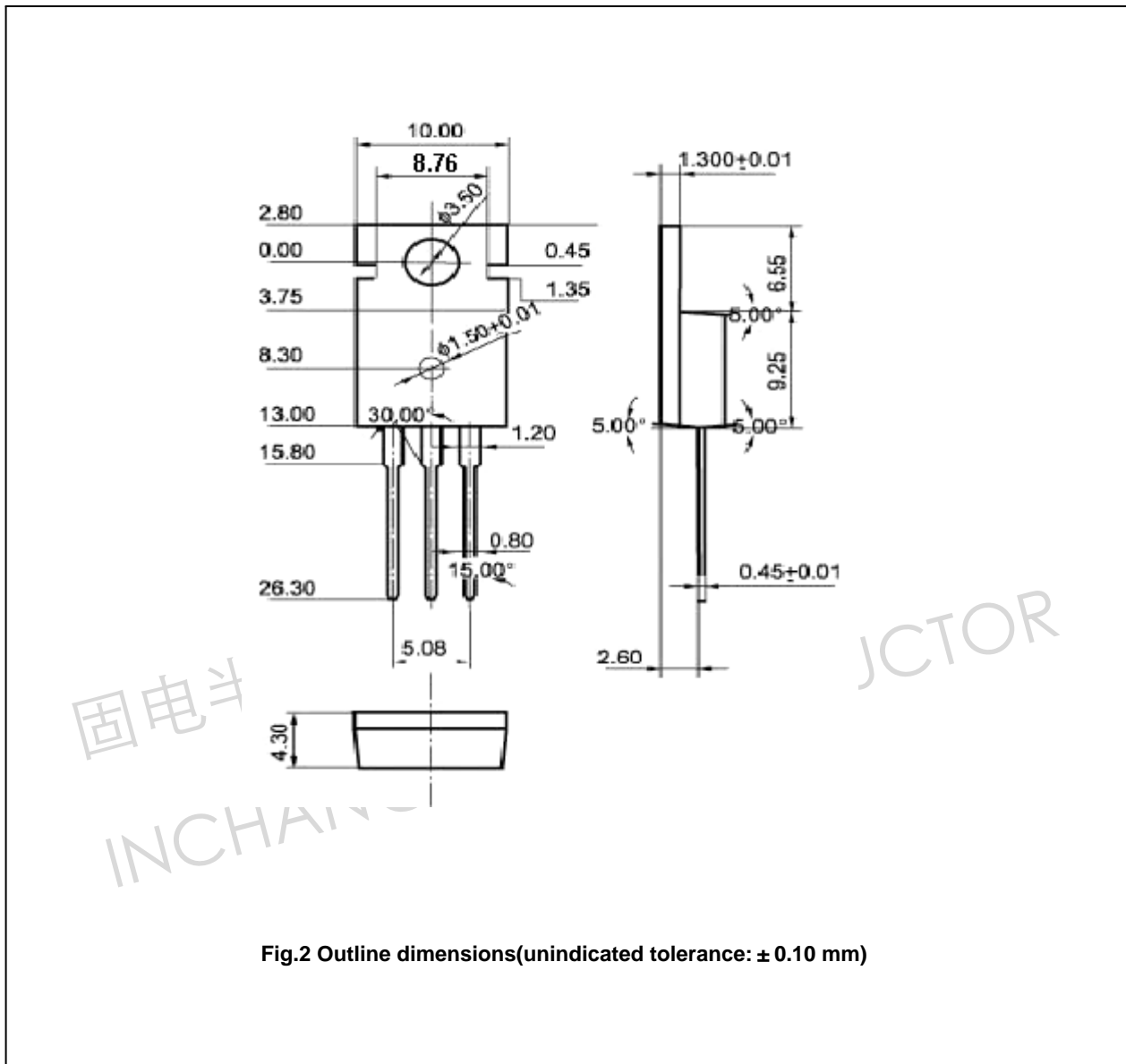


Fig.2 Outline dimensions(unindicated tolerance:  $\pm 0.10$  mm)

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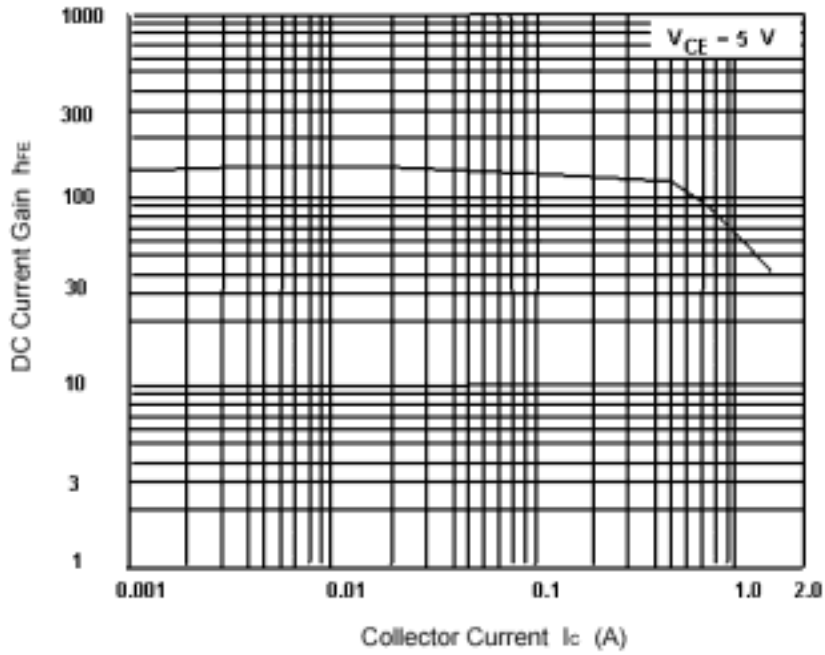


Fig.3 DC current Gain

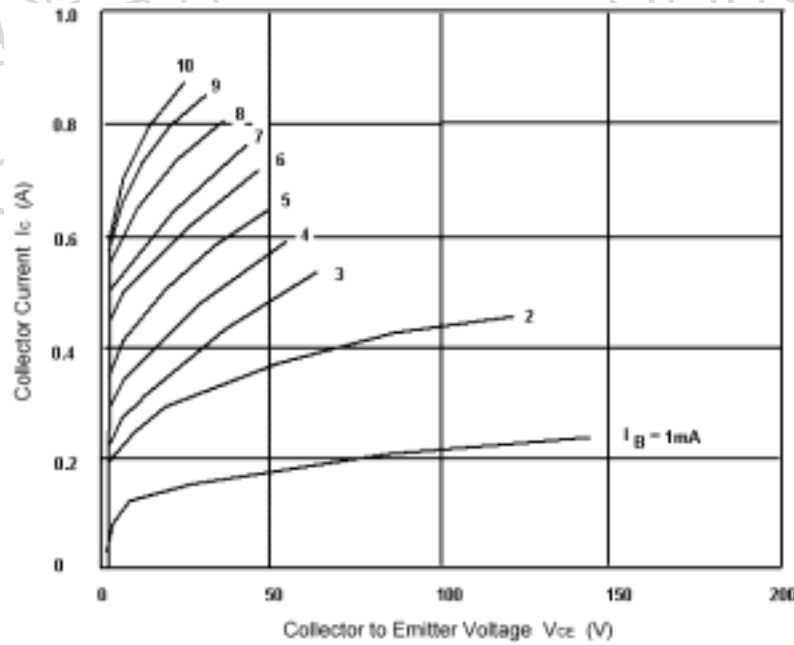


Fig.4 Static Characteristic

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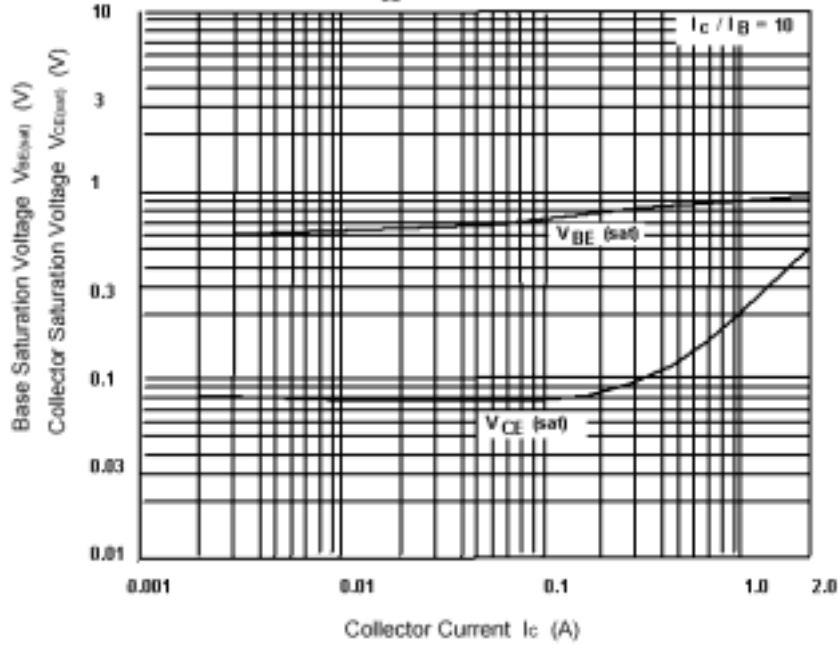


Fig.5 Base-Emitter Saturation Voltage  
Collector-Emmitter Saturation Voltage

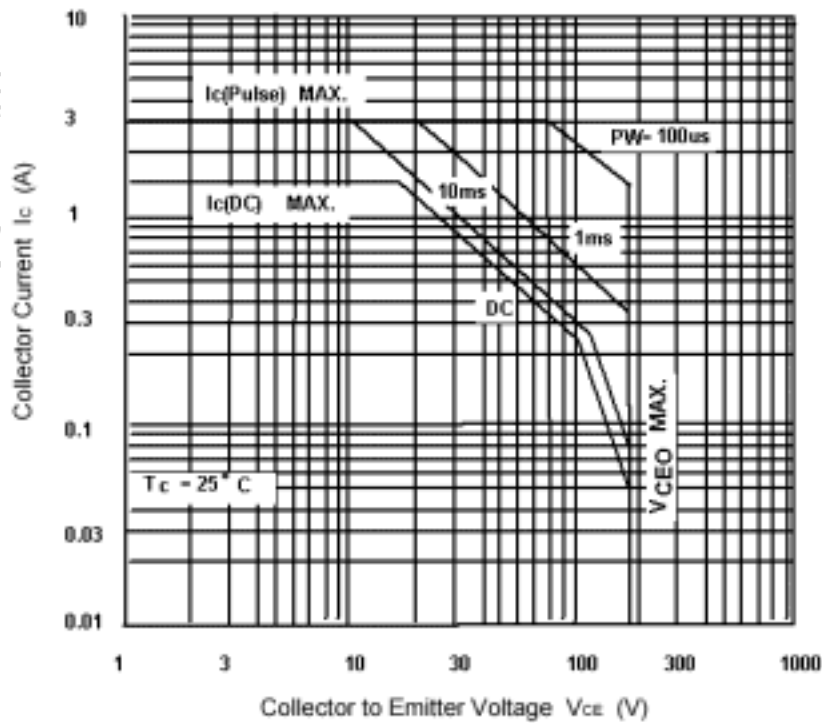


Fig.6 Safe Operating Area