

**Silicon PNP Power Transistors**

**2SA1535 2SA1535A**

**DESCRIPTION**

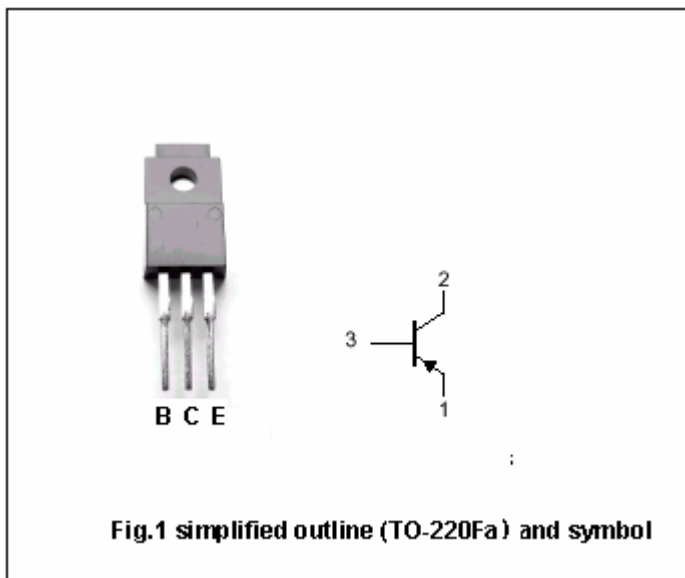
- With TO-220Fa package
- Complement to type 2SC3944/3944A
- Optimum for the driver-stage of a 60W to 100W output amplifier

**APPLICATIONS**

- For low-frequency driver and high power amplification

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2SA1535	-150	V
		2SA1535A	-180	
V <sub>CEO</sub>	Collector-emitter voltage	2SA1535	-150	V
		2SA1535A	-180	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-1.0	A
I <sub>CM</sub>	Collector current-peak		-1.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25°C	2.0	W
		T <sub>C</sub> =25°C	15	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SA1535	I <sub>C</sub> =-1mA; I <sub>B</sub> =0	-150		V
		2SA1535A	I <sub>C</sub> =-0.1mA; I <sub>B</sub> =0	-180		
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-10μA; I <sub>C</sub> =0	-5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-0.5 A; I <sub>B</sub> =-50m A			-2.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-0.5 A; I <sub>B</sub> =-50m A			-2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-150V; I <sub>E</sub> =0			-10	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-150mA ; V <sub>CE</sub> =-10V	90		330	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-500mA ; V <sub>CE</sub> =-5V	50			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-50mA ; V <sub>CB</sub> =-10V		200		MHz
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =-10V; f=1MHz		30		pF

◆ h<sub>FE-1</sub> classifications

Q	R	S
90-155	130-220	185-330

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PACKAGE OUTLINE

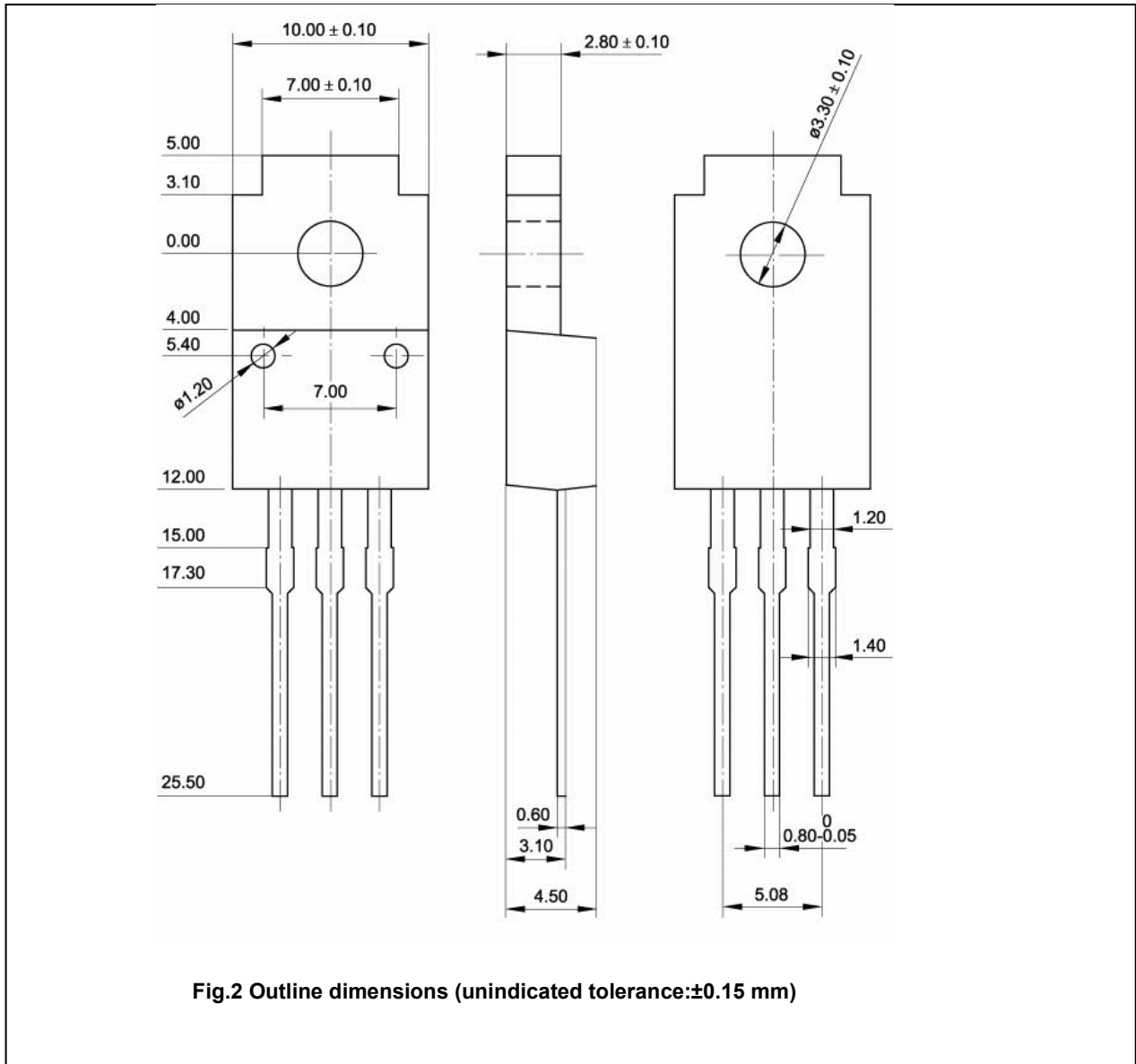


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.15$  mm)

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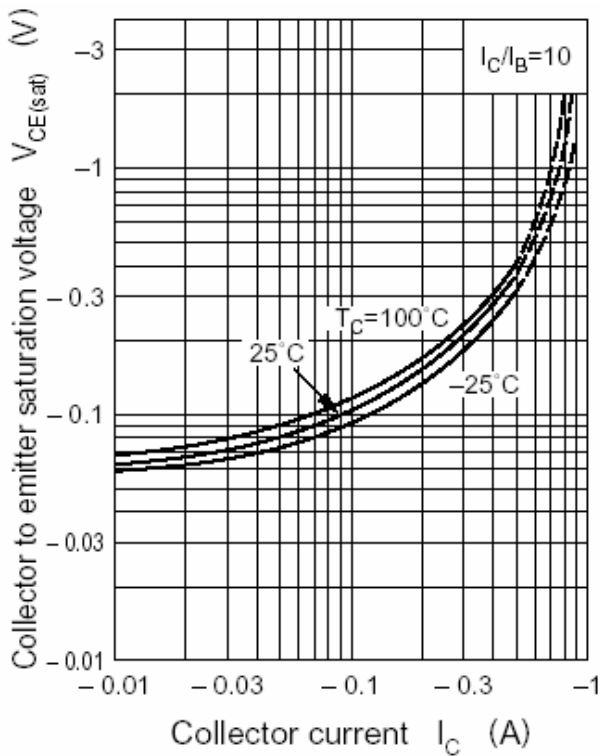


Fig.3 Collector-Emitter Saturation Voltage

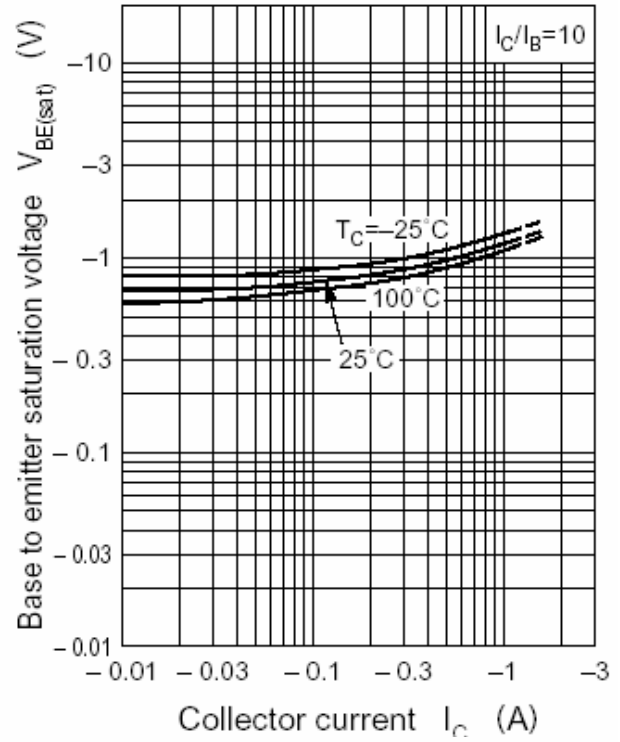


Fig.4 Base-Emitter Saturation Voltage

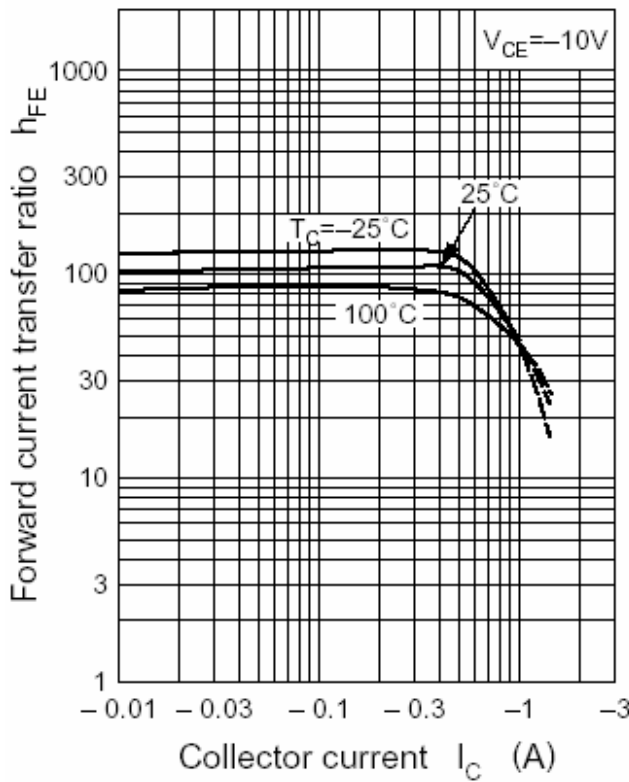


Fig.5 DC current Gain

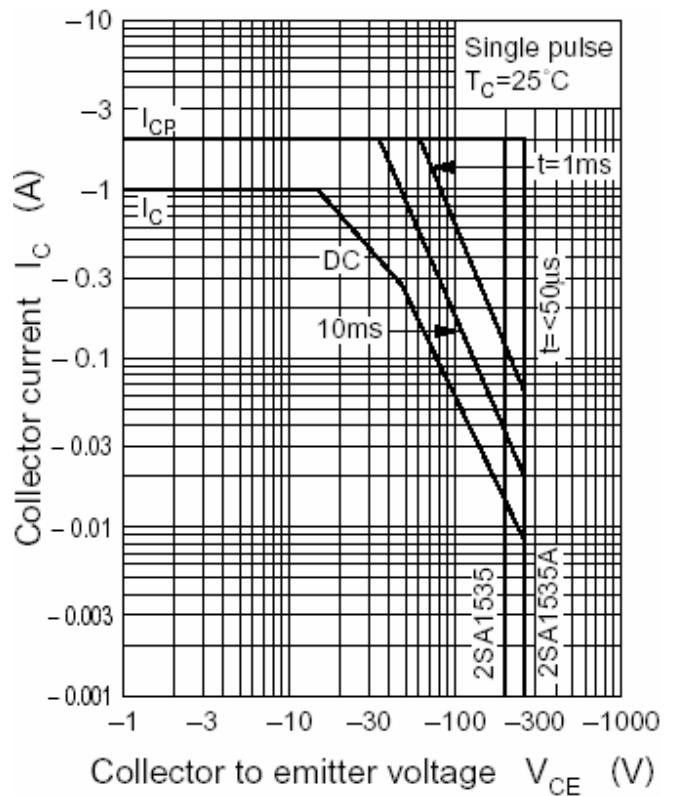


Fig.6 Safe Operating Area