

**Silicon PNP Power Transistors**

**2SA1837**

**DESCRIPTION**

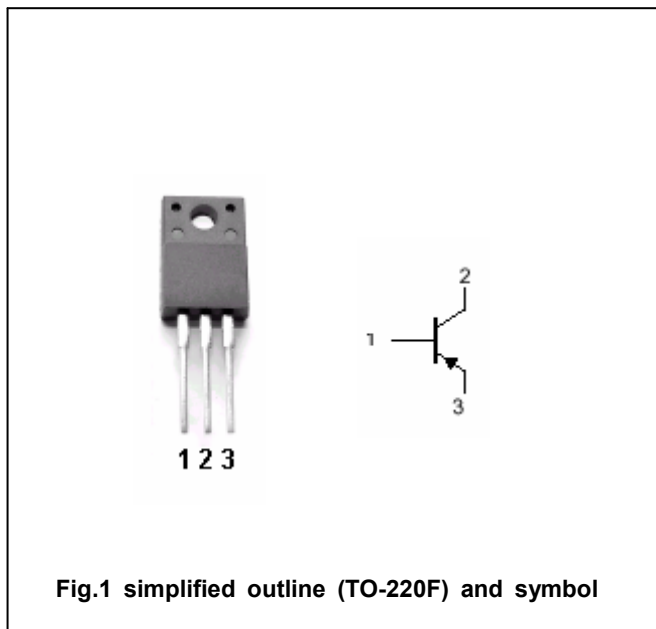
- With TO-220F package
- Complement to type 2SC4793
- High transition frequency

**APPLICATIONS**

- Power amplifier applications
- Driver stage amplifier applications

**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	Open emitter	-230	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-230	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-1	A
I <sub>B</sub>	Base current		-0.1	A
P <sub>C</sub>	Collector dissipation	T <sub>C</sub> =25°C	20	W
		T <sub>a</sub> =25°C	2.0	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

## Silicon PNP Power Transistors

## 2SA1837

## 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	I <sub>C</sub> =-10mA ; I <sub>B</sub> =0	-230			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-0.5A ; I <sub>B</sub> =-50mA			-1.5	V
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =-0.5A ; V <sub>CE</sub> =-5V			-1.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-230V ; I <sub>E</sub> =0			-1.0	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V ; I <sub>C</sub> =0			-1.0	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-0.1A ; V <sub>CE</sub> =-5V	100		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> =-0.1A ; V <sub>CE</sub> =-10V		70		MHz

Silicon PNP Power Transistors

2SA1837

PACKAGE OUTLINE

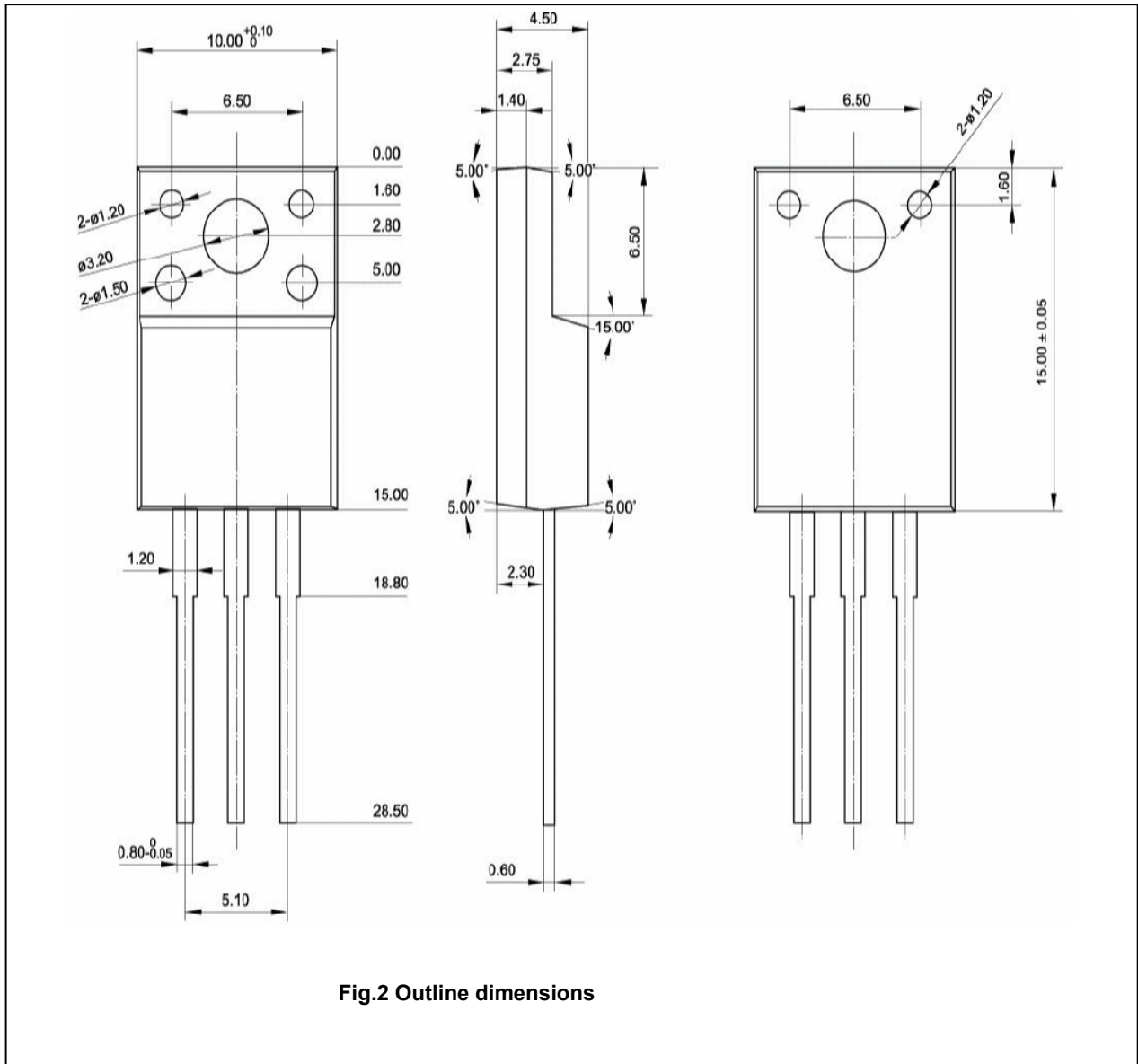


Fig.2 Outline dimensions

Silicon PNP Power Transistors

2SA1837

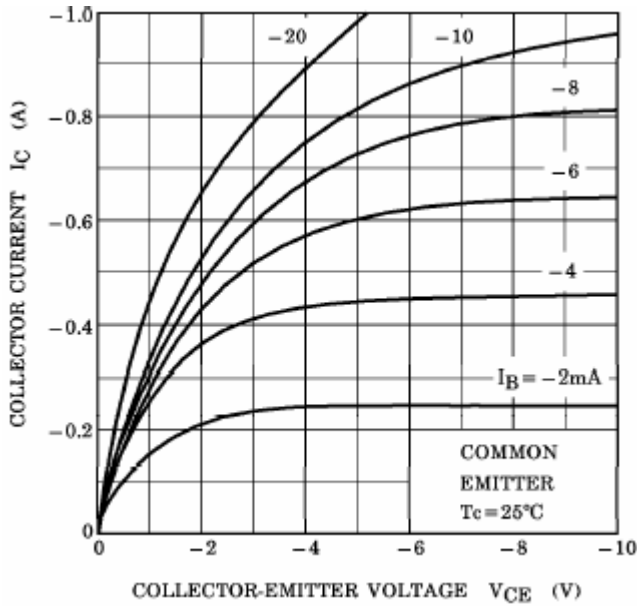


Fig.3 Static Characteristic

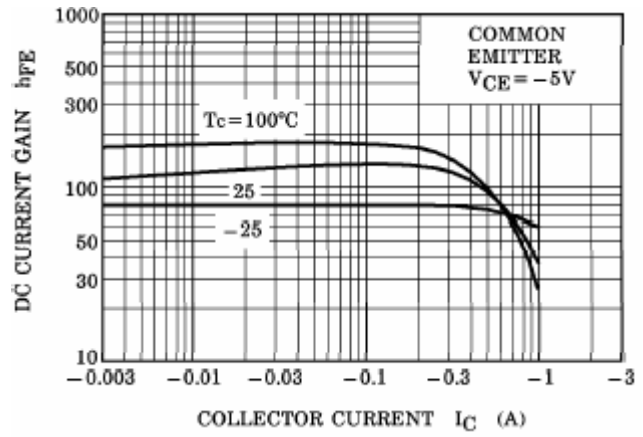


Fig.4 DC current Gain

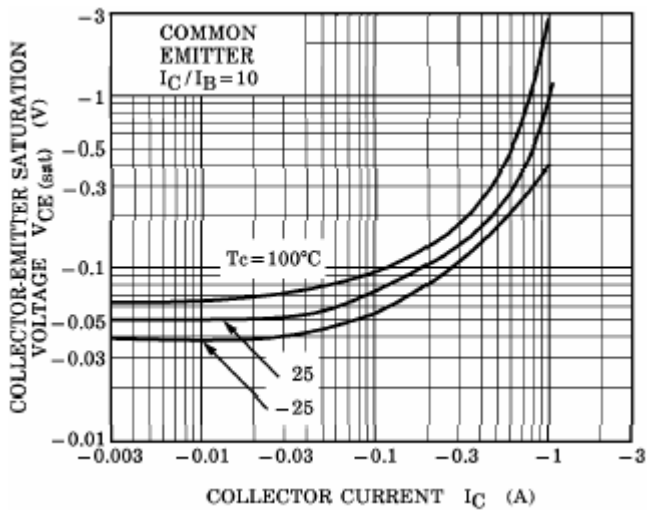


Fig.5 Collector-Emitter Saturation Voltage

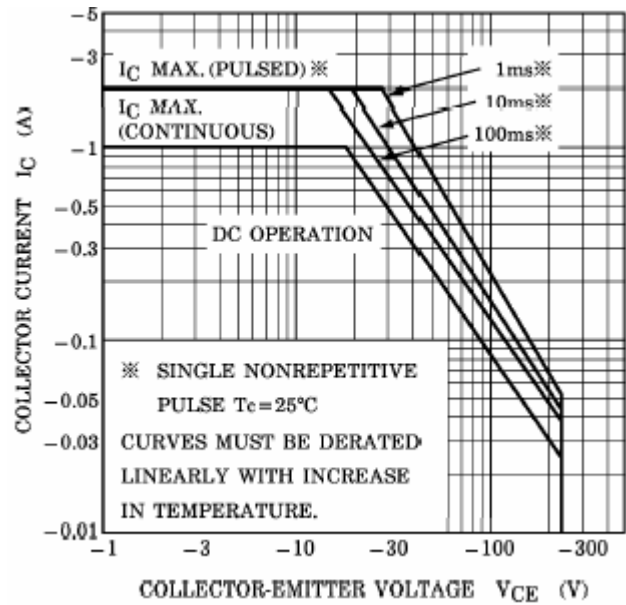


Fig.6 Safe Operating Area