

**Silicon PNP Power Transistors**

**2SA1470**

**DESCRIPTION**

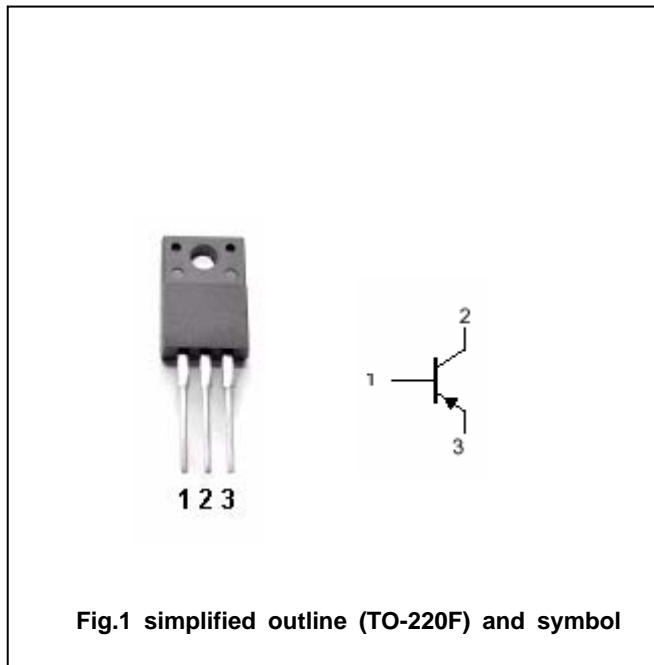
- With TO-220F package
- Complement to type 2SC3747
- Low saturation voltage
- Fast switching time

**APPLICATIONS**

- Inductance,lamp drivers
- Inverters ,converters
- Power amplification
- High-speed switching

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-80	V
$V_{CEO}$	Collector-emitter voltage	Open base	-60	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-7	A
$I_{CM}$	Collector current-peak		-10	A
$P_C$	Collector power dissipation	$T_a=25$	2	W
		$T_C=25$	25	
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

## Silicon PNP Power Transistors

## 2SA1470

## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-1mA ;R <sub>BE</sub> =	-60			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-1mA ;I <sub>E</sub> =0	-80			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1mA ;I <sub>C</sub> =0	-5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3.5A I <sub>B</sub> =-0.175A			-0.4	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-40V I <sub>E</sub> =0			-0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-4V; I <sub>C</sub> =0			-0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-2V	70		280	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V		100		MHz

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =-3.0A; I <sub>B1</sub> =-I <sub>B2</sub> =-0.15A V <sub>CC</sub> =20V ,R <sub>L</sub> =6.67		0.1		μs
t <sub>s</sub>	Storage time			0.5		μs
t <sub>f</sub>	Fall time			0.1		μs

◆ h<sub>FE</sub> Classifications

Q	R	S
70-140	100-200	140-280

Silicon PNP Power Transistors

2SA1470

PACKAGE OUTLINE

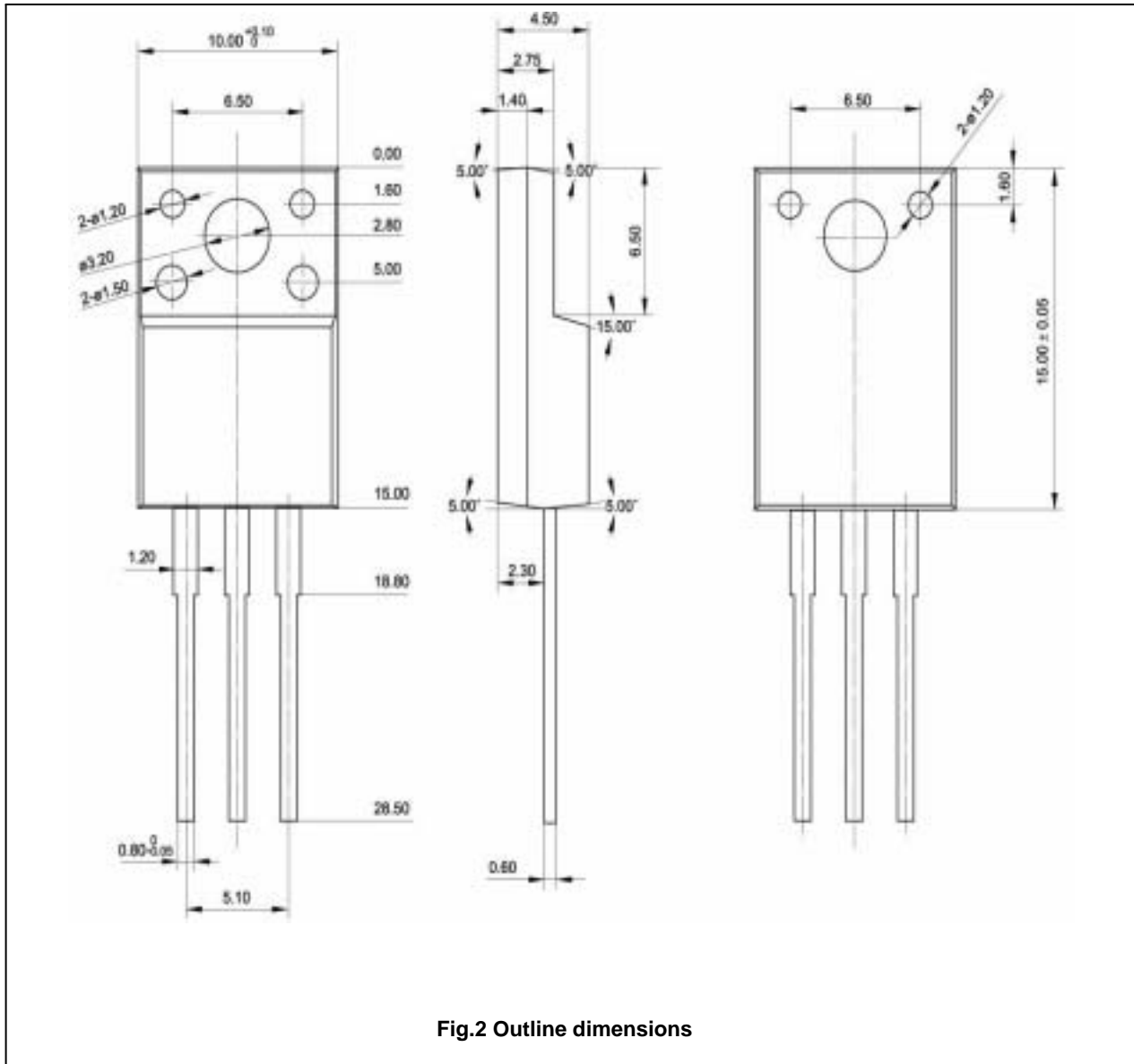


Fig.2 Outline dimensions

Silicon PNP Power Transistors

2SA1470

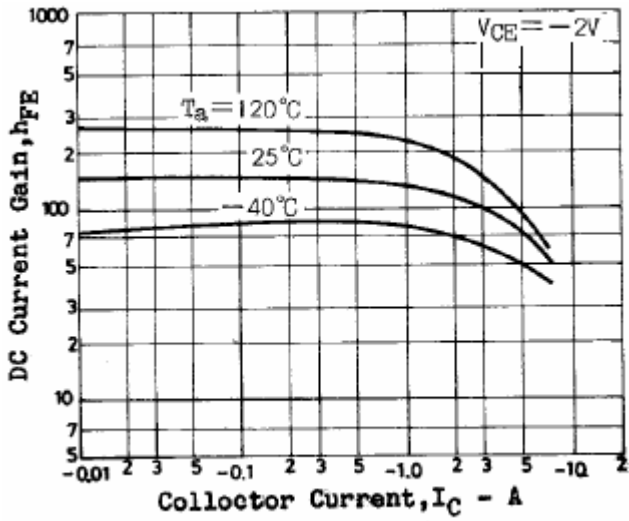


Fig.3 DC current Gain

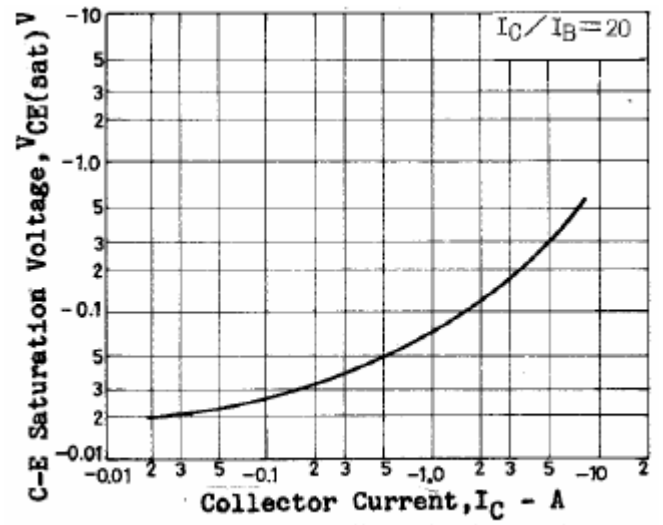


Fig.4 Collector-Emitter Saturation Voltage

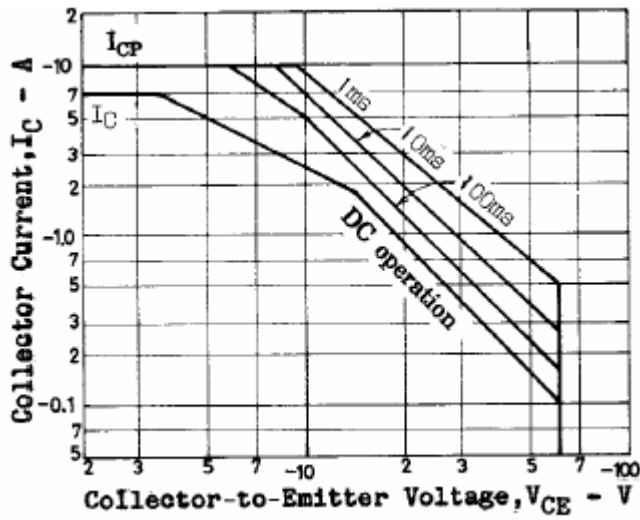


Fig.5 Safe Operating Area