

Silicon PNP Power Transistors

2SA1470

DESCRIPTION

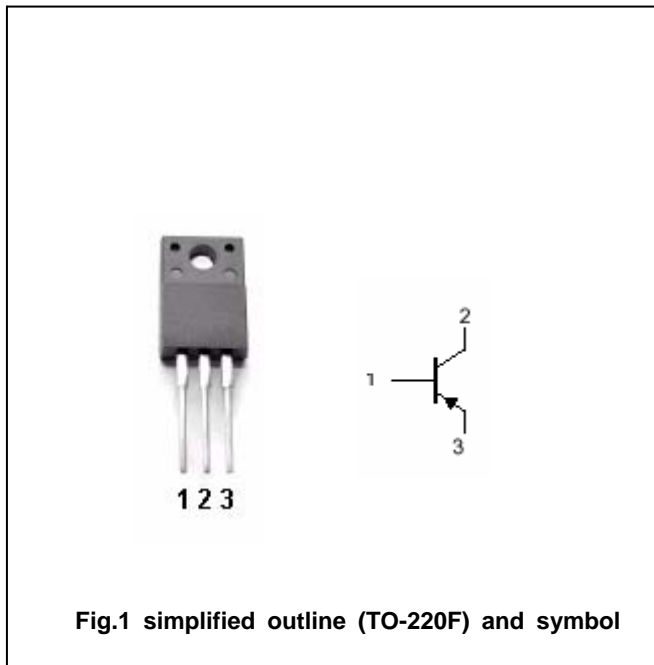
- With TO-220F package
- Complement to type 2SC3747
- Low saturation voltage
- Fast switching time

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°C)

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	$T_a=25^{\circ}C$	2	W
		$T_C=25^{\circ}C$	25	
T_j	Junction temperature		150	$^{\circ}C$
T_{stg}	Storage temperature		-55~150	$^{\circ}C$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-1mA ; R _{BE} =∞	-60			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =-1mA ; I _E =0	-80			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-1mA ; I _C =0	-5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-3.5A I _B =-0.175A			-0.4	V
I _{CBO}	Collector cut-off current	V _{CB} =-40V I _E =0			-0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-4V ; I _C =0			-0.1	mA
h _{FE}	DC current gain	I _C =-1A ; V _{CE} =-2V	70		280	
f _T	Transition frequency	I _C =-1A ; V _{CE} =-5V		100		MHz

Switching times

t _{on}	Turn-on time	I _C =-3.0A ; I _{B1} =-I _{B2} =-0.15A V _{CC} =20V , R _L =6.67 Ω		0.1		μ s
t _s	Storage time			0.5		μ s
t _f	Fall time			0.1		μ s

◆ h_{FE} Classifications

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

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PACKAGE OUTLINE

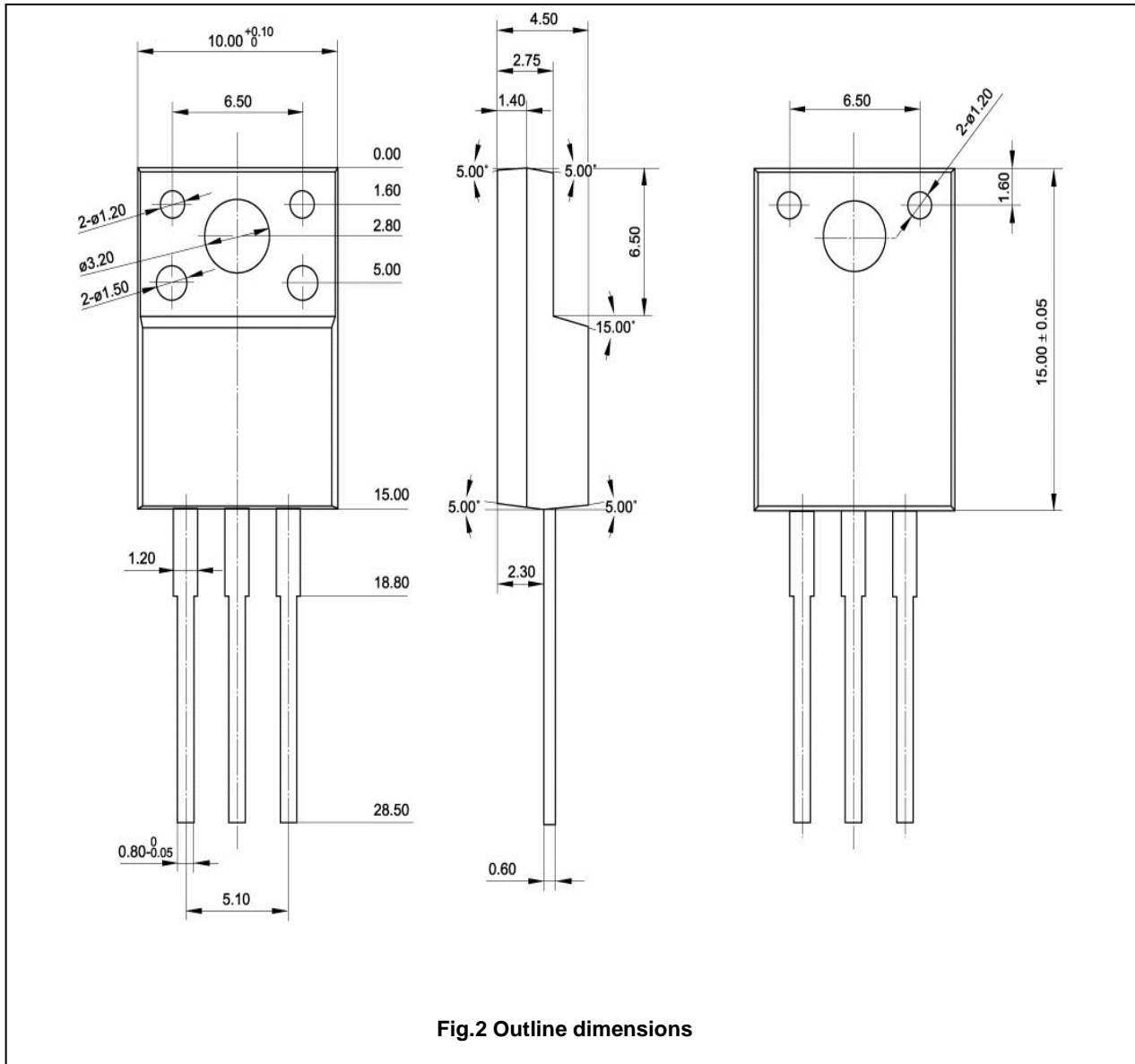


Fig.2 Outline dimensions

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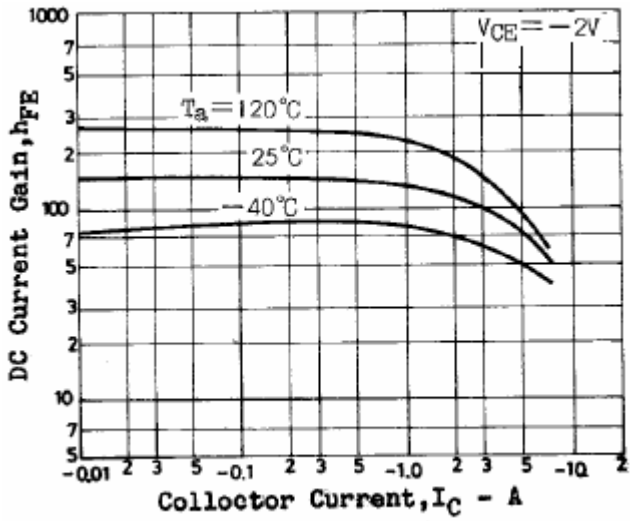


Fig.3 DC current Gain

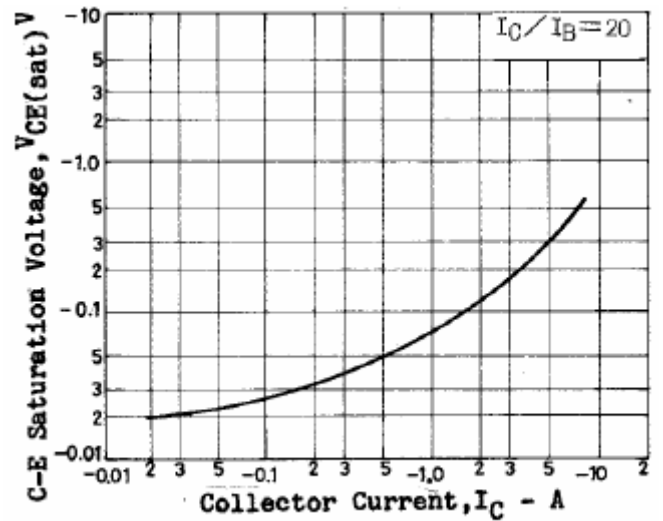


Fig.4 Collector-Emitter Saturation Voltage

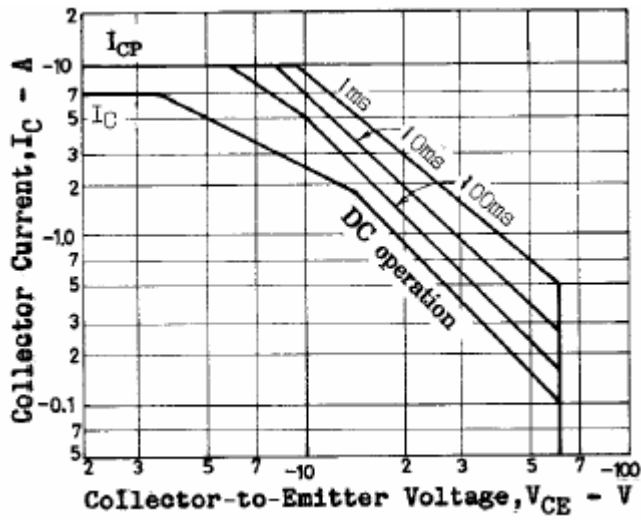


Fig.5 Safe Operating Area