

Silicon PNP Power Transistors

2SA1469

DESCRIPTION

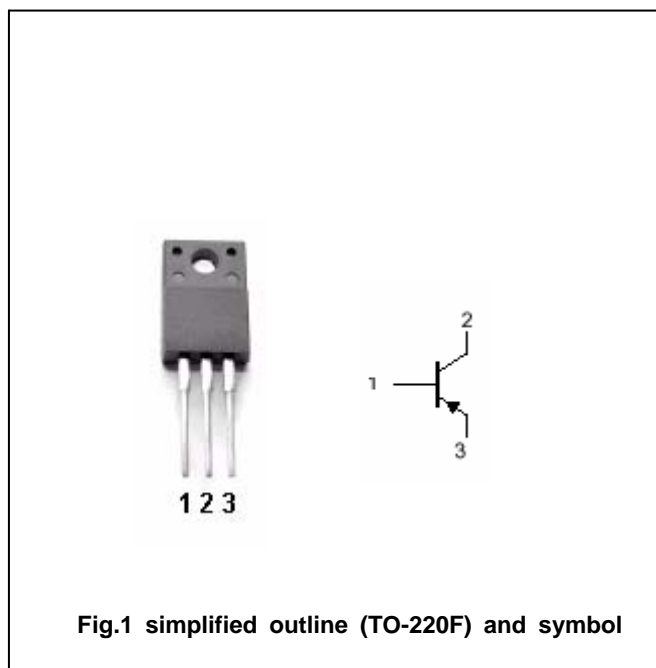
- With TO-220F package
- Complement to type 2SC3746
- Low saturation voltage
- Excellent current dependence of h_{FE}
- Short switching time

APPLICATIONS

- Various inductance of lamp drivers for electrical equipment
- Inverters ,converters
- Power amplification
- Switching regulator ,driver

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

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		-5	A
I_{CM}	Collector current-peak		-7	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	2	W
		$T_C=25^\circ\text{C}$	20	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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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 =-10mA ;I _E =0	-80			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-10mA ;I _C =0	-5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-2.5A I _B =-0.125A			-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 =-2.0A;I _{B1} =-I _{B2} =-0.1A V _{CC} =20V ,R _L =10 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

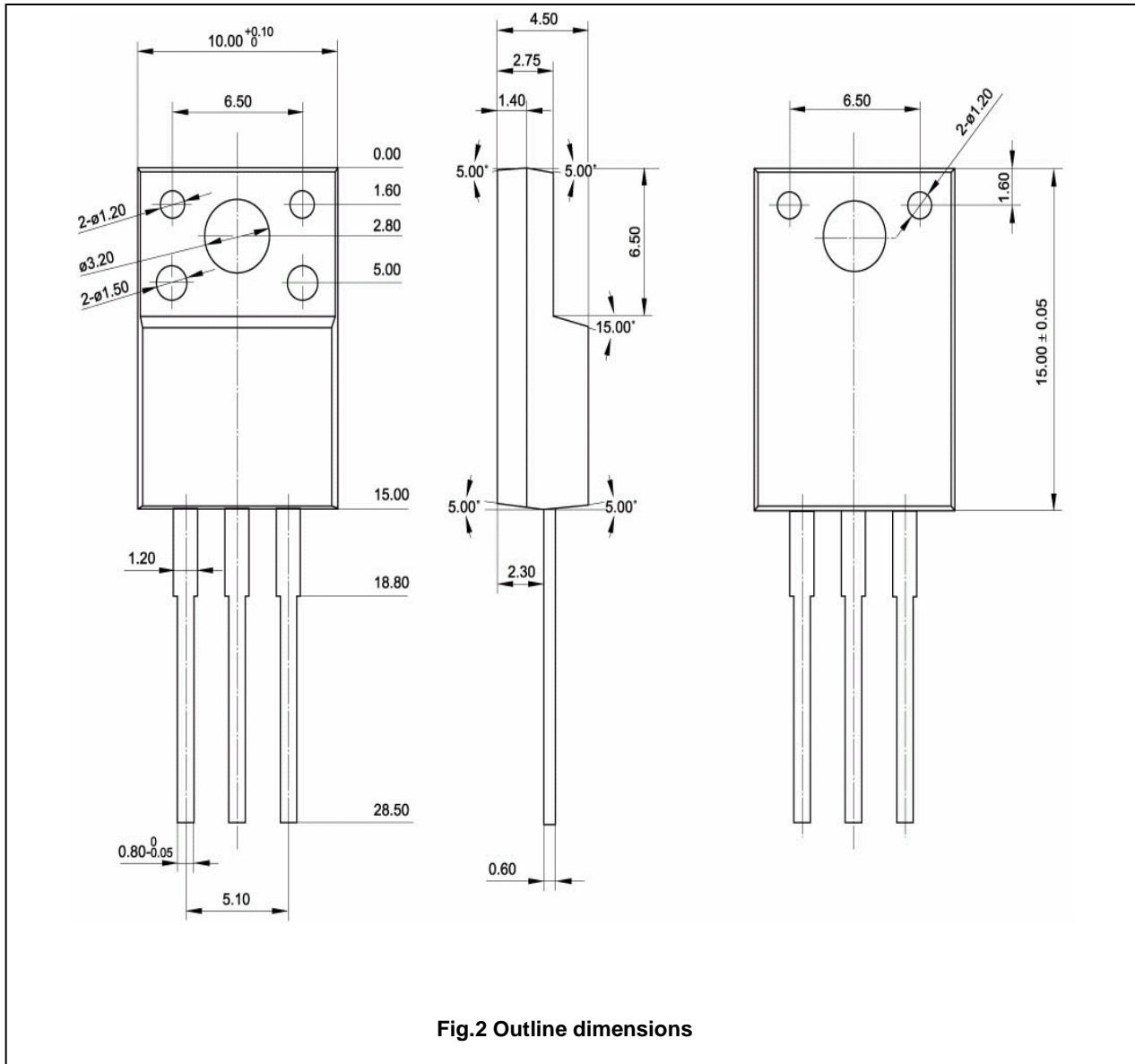


Fig.2 Outline dimensions

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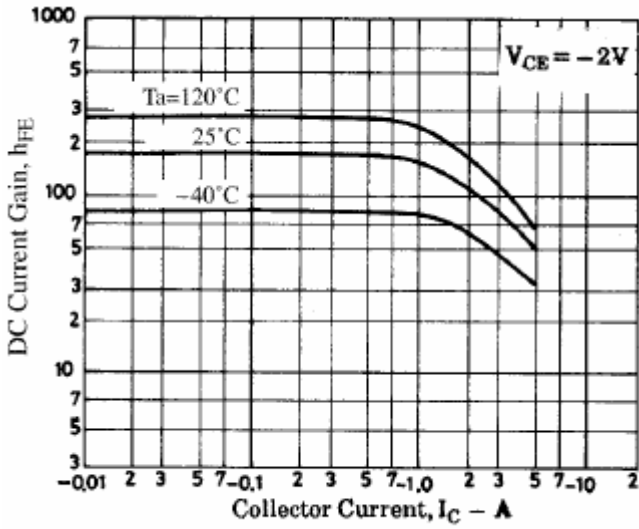


Fig.3 DC current Gain

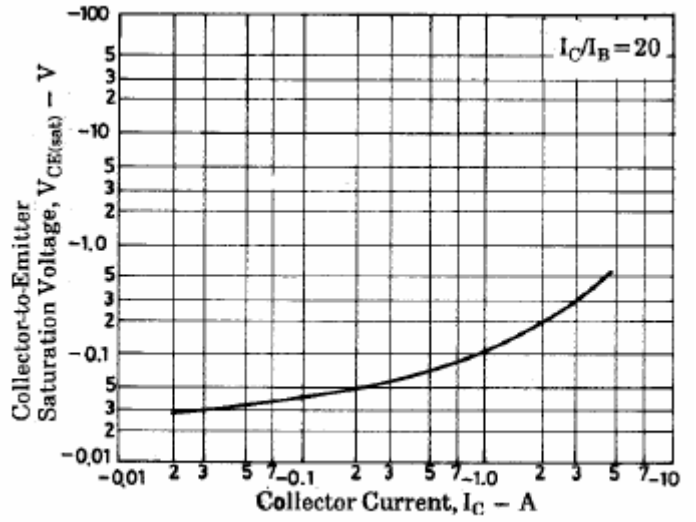


Fig.4 Collector-Emitter Saturation Voltage

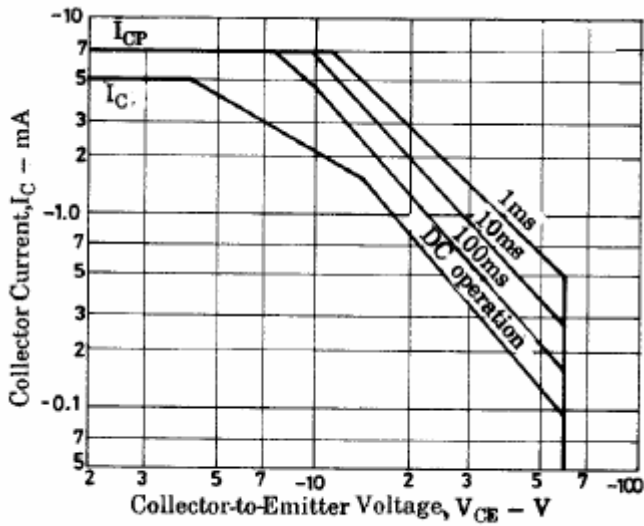


Fig.5 Safe Operating Area