

Silicon PNP Power Transistors

2SA1469

DESCRIPTION

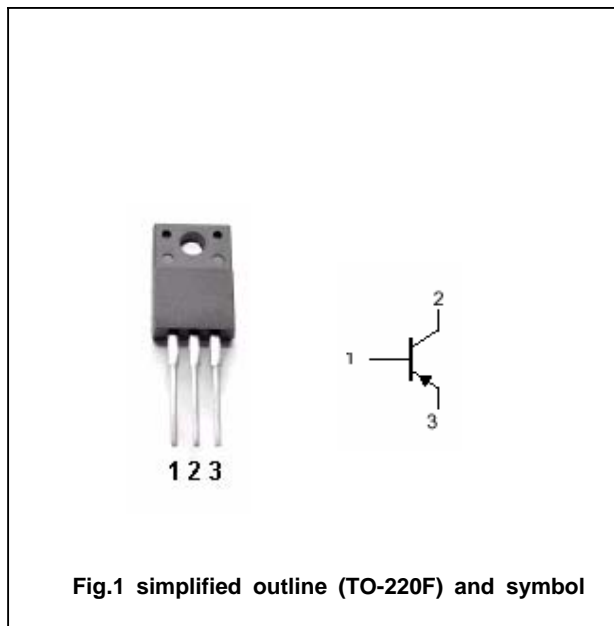
- With TO-220F package
- Complement to type 2SC3746
- Low saturation voltage
- Excellent current dependence of h_{FE}
- Short switching time

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

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-1mA ; R_{BE}=\infty$	-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	$I_C=-2.0A ; I_{B1}=-I_{B2}=-0.1A$ $V_{CC}=20V ; R_L=10\Omega$		0.1		μs
t_s	Storage time			0.5		μs
t_f	Fall time			0.1		μs

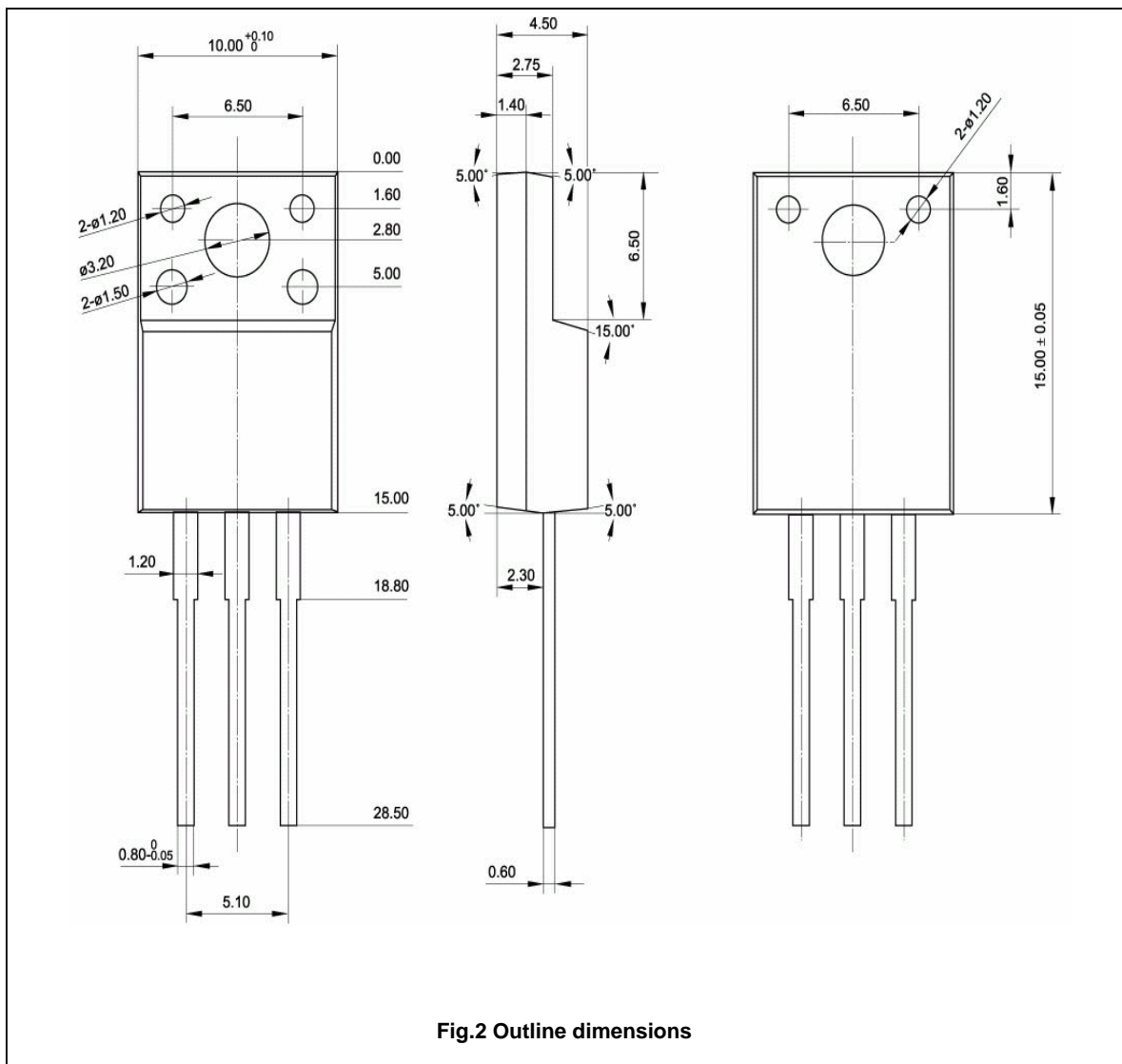
◆ h_{FE} Classifications

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

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PACKAGE OUTLINE



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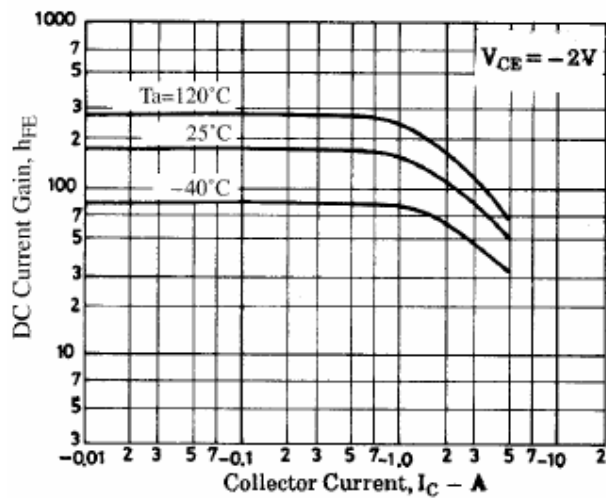


Fig.3 DC current Gain

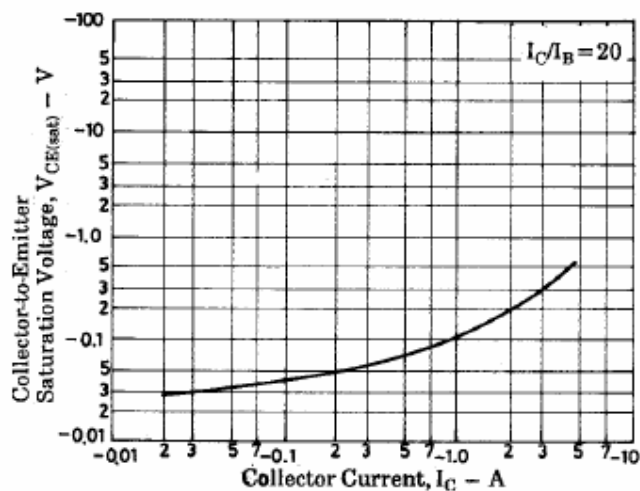


Fig.4 Collector-Emitter Saturation Voltage

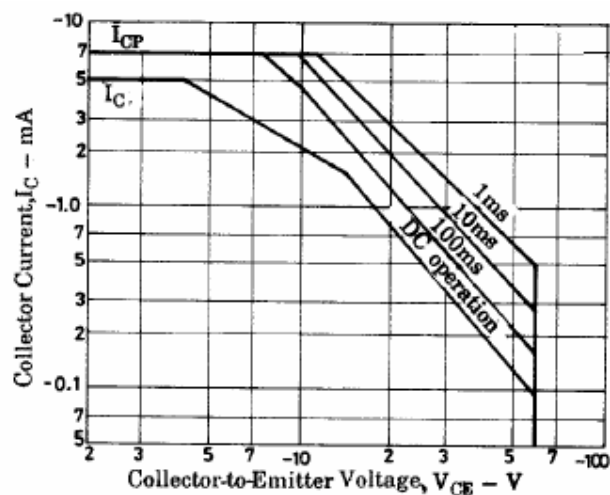


Fig.5 Safe Operating Area