

Silicon PNP Power Transistors

2SA1725

DESCRIPTION

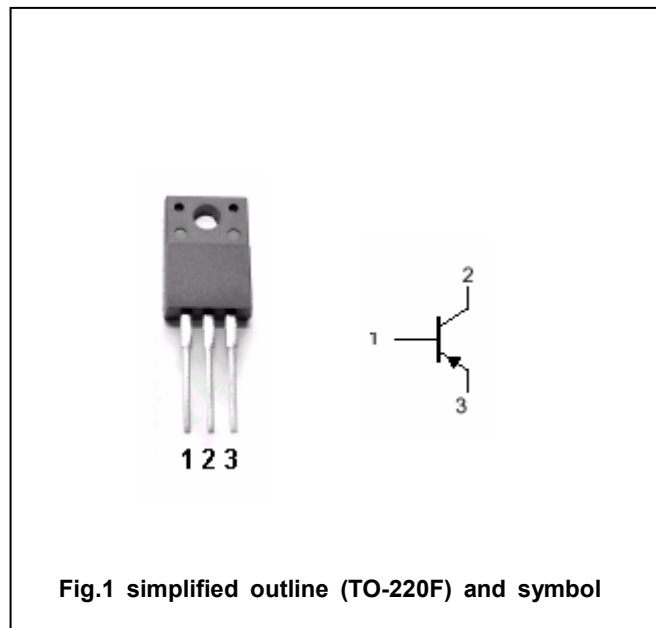
- With TO-220F package
- Complement to type 2SC4511

APPLICATIONS

- Audio and general purpose

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	-80	V
V_{EBO}	Emitter-base voltage	Open collector	-6	V
I_C	Collector current		-6	A
I_B	Base current		-3	A
P_C	Collector dissipation	$T_C=25^\circ\text{C}$	30	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

Silicon PNP Power Transistors

2SA1725

CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-25mA$; $I_B=0$	-80			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-2A$; $I_B=-0.2A$			-0.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=-80V$; $I_E=0$			-10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-6V$; $I_C=0$			-10	μA
h_{FE}	DC current gain	$I_C=-2A$; $V_{CE}=-4V$	50		180	
C_{OB}	Output capacitance	$I_E=0$; $V_{CB}=-10V$; $f=1MHz$		150		pF
f_T	Transition frequency	$I_E=0.5A$; $V_{CE}=-12V$		20		MHz

Switching times

t_{on}	Turn-on time	$I_C=-3.0A$; $I_{B1}=-I_{B2}=-0.3A$ $V_{CC}=-30V$, $R_L=10\Omega$		0.18		μs
t_s	Storage time			1.10		μs
t_f	Fall time			0.21		μs

◆ h_{FE} Classifications

O	P	Y
50-100	70-140	90-180

Silicon PNP Power Transistors

2SA1725

PACKAGE OUTLINE

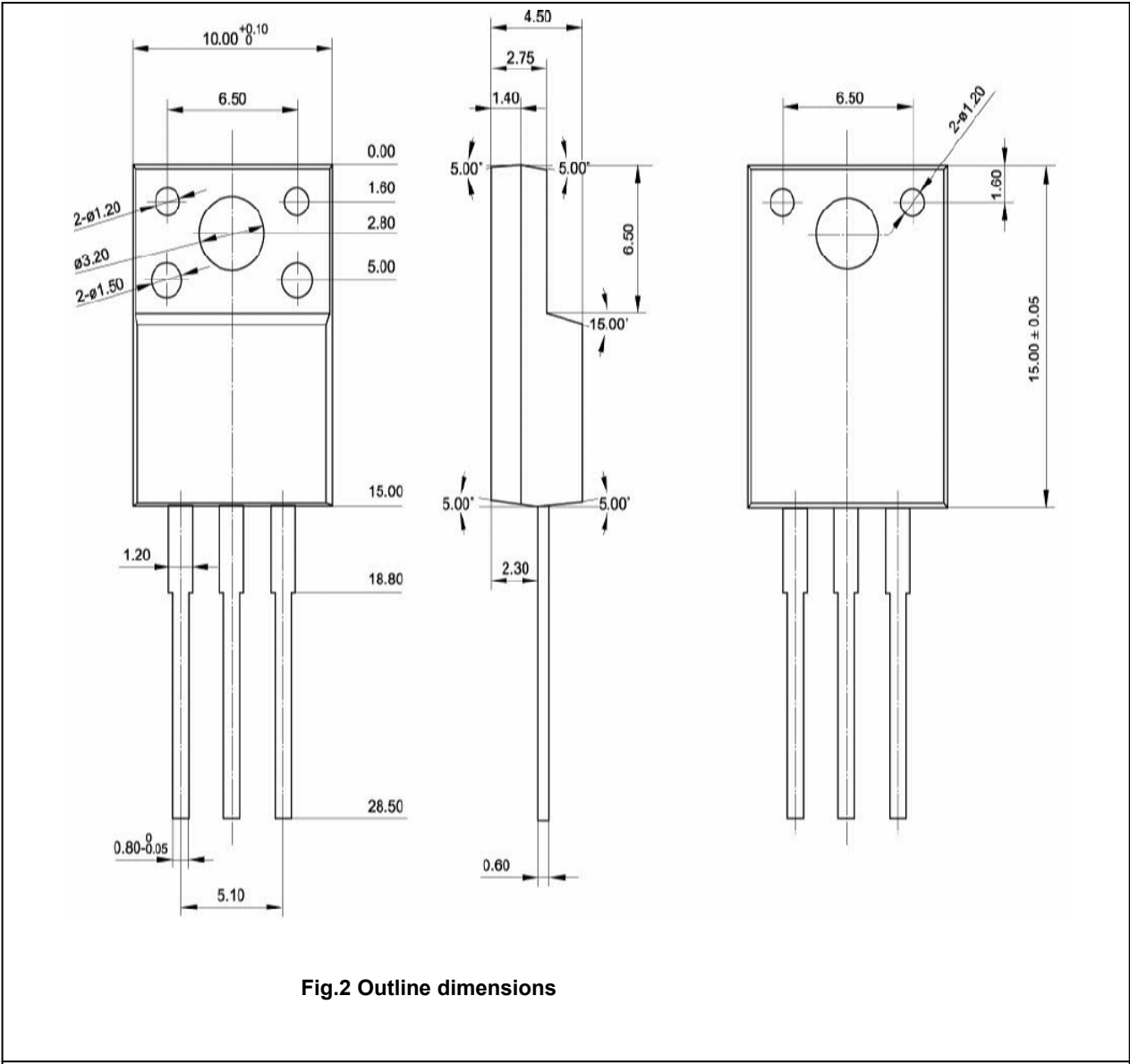


Fig.2 Outline dimensions

Silicon PNP Power Transistors

2SA1725

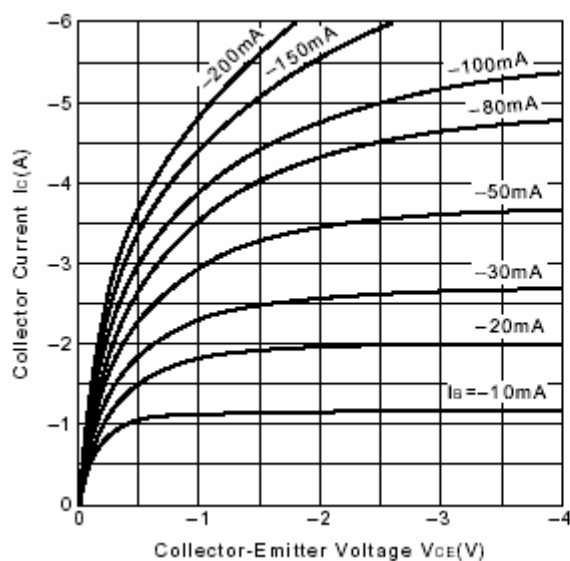


Fig.3 Static Characteristic

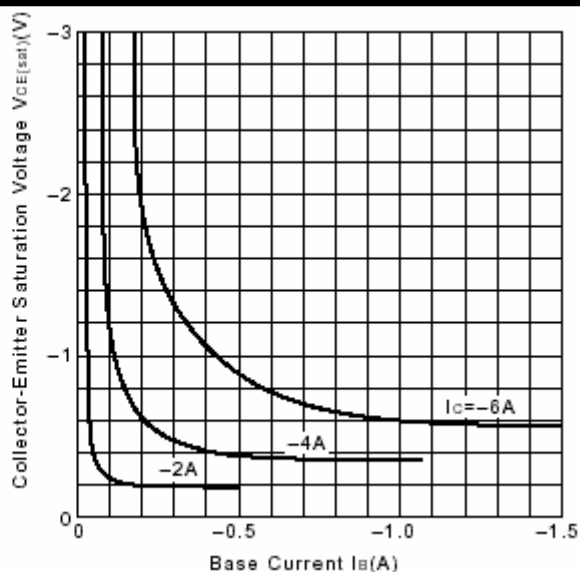
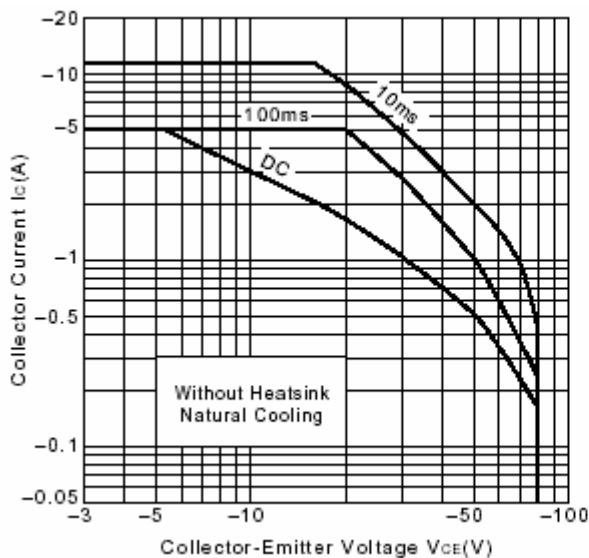
Fig.4 $V_{CE(sat)} - I_B$ Characteristics

Fig.5 Safe Operating Area

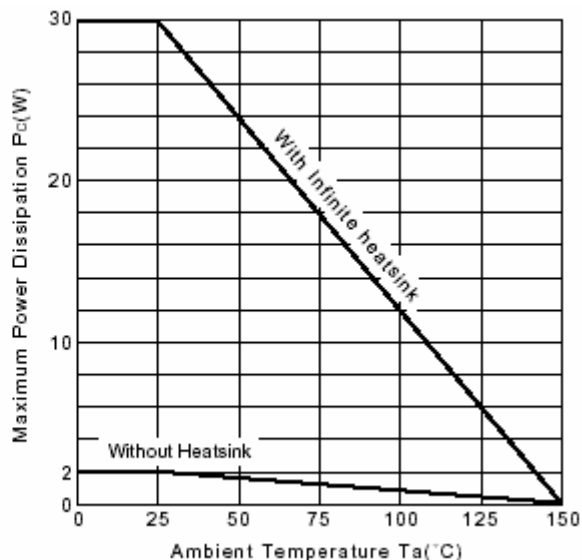
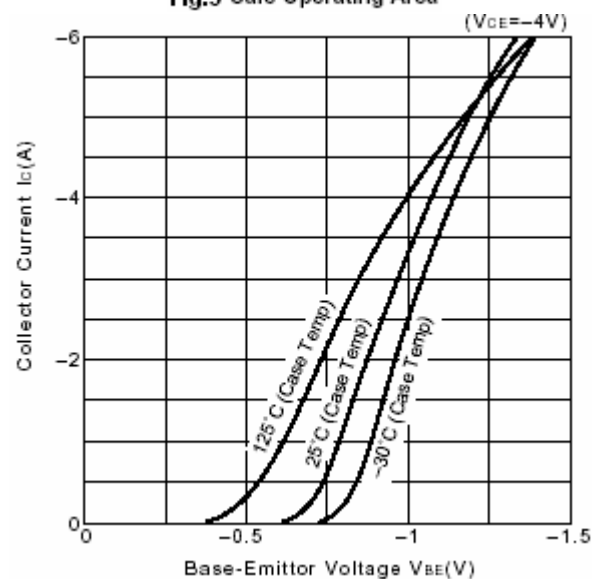
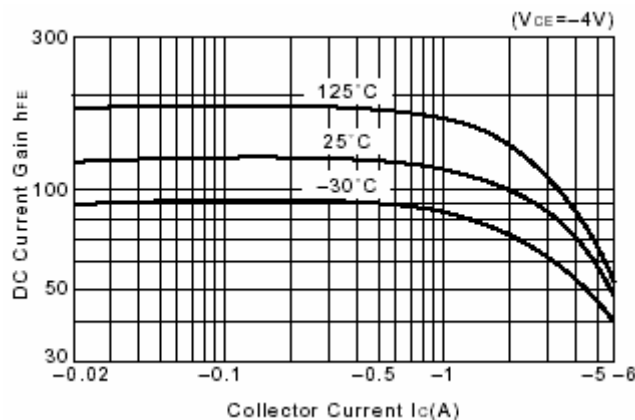
Fig.6 $P_C - T_a$ DeratingFig.7 $I_C - V_{BE}$ 

Fig.8 DC current Gain