

Silicon PNP Power Transistors

2SA1694

DESCRIPTION

- With TO-3PN package
- Complement to type 2SC4467

APPLICATIONS

- Audio and general purpose

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

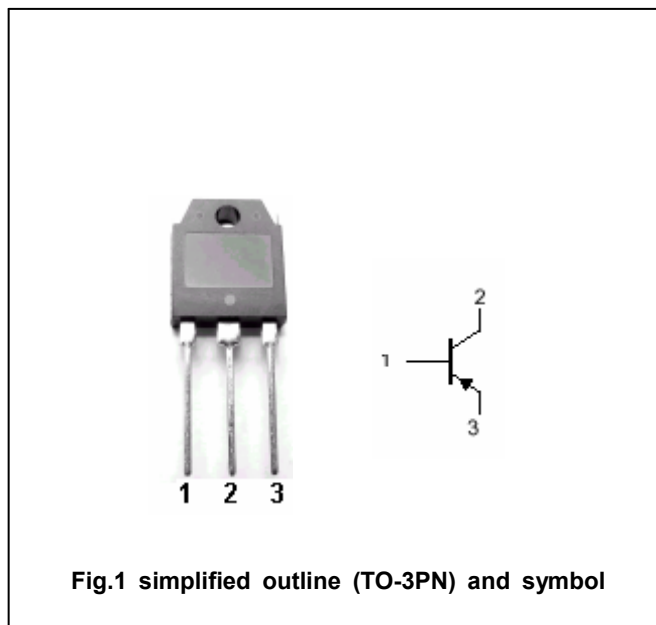


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-120	V
V_{CEO}	Collector-emitter voltage	Open base	-120	V
V_{EBO}	Emitter-base voltage	Open collector	-6	V
I_C	Collector current		-8	A
I_B	Base current		-3	A
P_C	Collector power dissipation	$T_C = 25\square$	80	W
T_j	Junction temperature		150	$\square$
T_{stg}	Storage temperature		-55~150	$\square$

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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	$I_C=-50mA$; $I_B=0$	-120			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-3A$; $I_B=-0.3A$			-1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=-120V$; $I_E=0$			-10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-6V$; $I_C=0$			-10	μA
h_{FE}	DC current gain	$I_C=-3A$; $V_{CE}=-4V$	50		180	
C_{OB}	Output capacitance	$I_E=0$; $V_{CB}=-10V$, $f=1MHz$		300		pF
f_T	Transition frequency	$I_C=-0.5A$; $V_{CE}=-12V$		20		MHz

Switching times

t_{on}	Turn-on time	$I_C=-4A$; $R_L=10\Omega$ $I_{B1}=-I_{B2}=-0.4A$ $V_{CC}=-40V$		0.14		μs
t_s	Storage time			1.40		μs
t_f	Fall time			0.21		μs

◆ h_{FE} Classifications

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

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Technical drawing of a mechanical part showing outline dimensions. The drawing includes a front view on the left and a side view on the right.

Front View Dimensions:

- Overall width: 15.60
- Overall height: 42.60
- Top width: 13.50
- Top width: 10.00
- Top width: 8.00
- Top width: 30-f11.50
- Top width: 10-f13.50
- Top width: R0.50
- Top width: 12.00
- Top width: 10-f12.05+0.05/-0.05
- Top width: 0.60
- Top width: 3.25
- Top width: 2.00
- Top width: 0.00
- Top width: 2.00

Side View Dimensions:

- Overall width: 4.80
- Overall height: 2.00 ± 0.005
- Overall height: 3.00
- Overall height: 17.00
- Overall height: 7.00
- Overall height: 13.50
- Overall height: 40.10
- Overall height: 3.00
- Overall height: 2.00
- Overall height: 0.60 ± 0.005
- Overall height: 3.40 +0.05/-0
- Overall height: 10.90 ± 0.01

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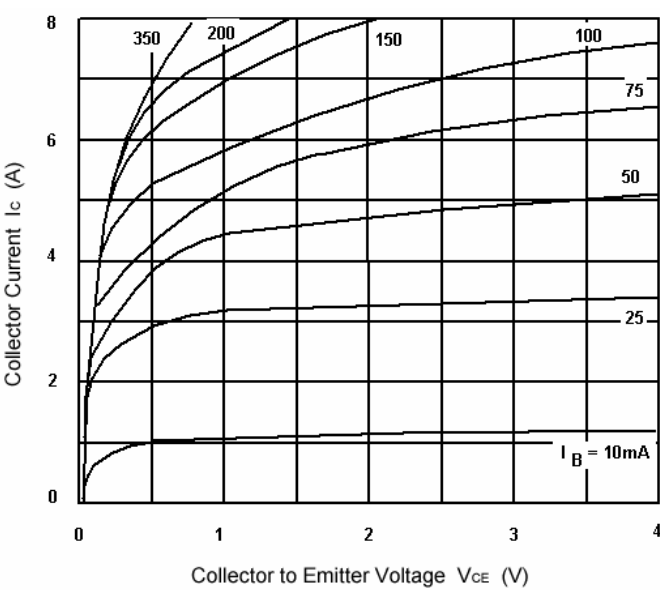


Fig.3 Static Characteristic

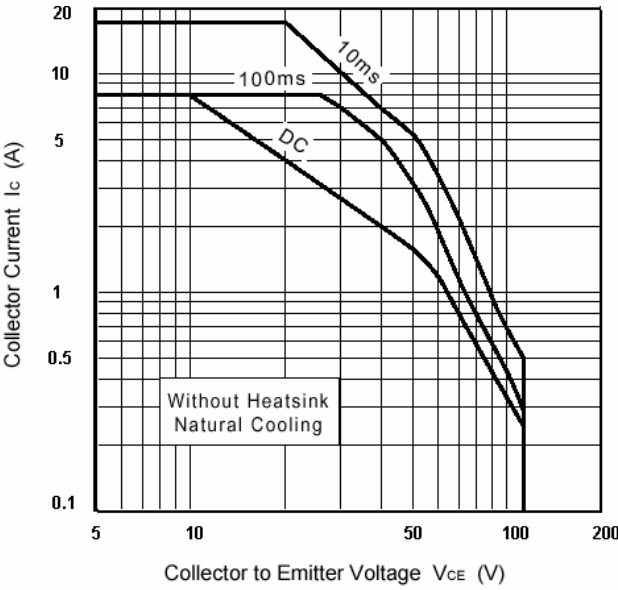


Fig.4 Safe Operating Area

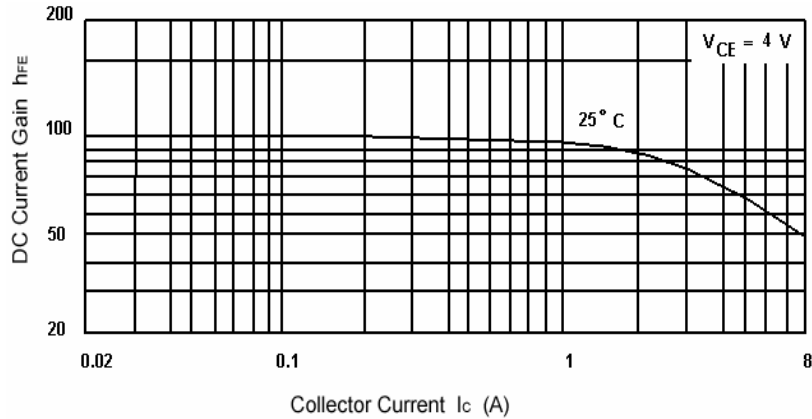


Fig.5 DC current Gain