

# 2SA1694

Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC4467)

Application : Audio and General Purpose

## Absolute maximum ratings (Ta=25°C)

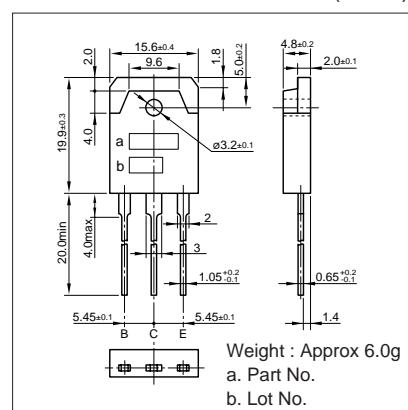
Symbol	Ratings	Unit
V <sub>CBO</sub>	-120	V
V <sub>CEO</sub>	-120	V
V <sub>EBO</sub>	-6	V
I <sub>c</sub>	-8	A
I <sub>b</sub>	-3	A
P <sub>c</sub>	80(T <sub>c</sub> =25°C)	W
T <sub>j</sub>	150	°C
T <sub>tg</sub>	-55 to +150	°C

## Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings	Unit
I <sub>cbo</sub>	V <sub>CB</sub> =-120V	-10max	μA
I <sub>ebo</sub>	V <sub>EB</sub> =-6V	-10max	μA
V <sub>(BR)CEO</sub>	I <sub>c</sub> =-50mA	-120min	V
h <sub>FE</sub>	V <sub>CE</sub> =-4V, I <sub>c</sub> =-3A	50min*	
V <sub>CE(sat)</sub>	I <sub>c</sub> =-3A, I <sub>b</sub> =-0.3A	-1.5max	V
f <sub>t</sub>	V <sub>CE</sub> =-12V, I <sub>e</sub> =0.5A	20typ	MHz
C <sub>OB</sub>	V <sub>CB</sub> =-10V, f=1MHz	300typ	pF

\*h<sub>FE</sub> Rank O(50to100), P(70to140), Y(90to180)

## External Dimensions MT-100(TO3P)

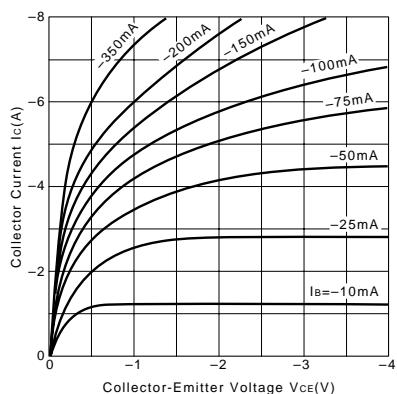


Weight : Approx 6.0g  
a. Part No.  
b. Lot No.

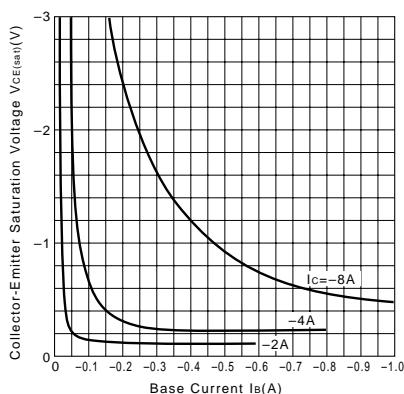
## Typical Switching Characteristics (Common Emitter)

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>c</sub> (A)	V <sub>BB1</sub> (V)	V <sub>BB2</sub> (V)	I <sub>b1</sub> (A)	I <sub>b2</sub> (A)	t <sub>on</sub> (μs)	t <sub>tg</sub> (μs)	t <sub>f</sub> (μs)
-40	10	-4	-10	5	-0.4	0.4	0.14typ	1.40typ	0.21typ

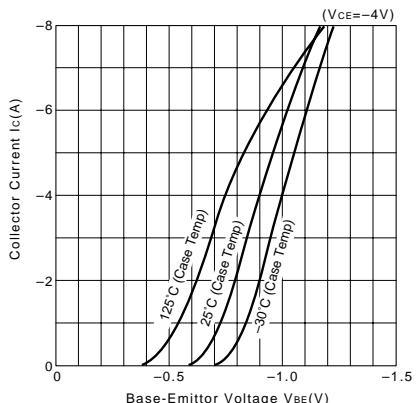
## I<sub>c</sub>-V<sub>CE</sub> Characteristics (Typical)



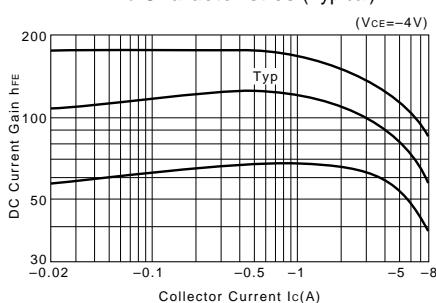
## V<sub>CE(sat)</sub>-I<sub>b</sub> Characteristics (Typical)



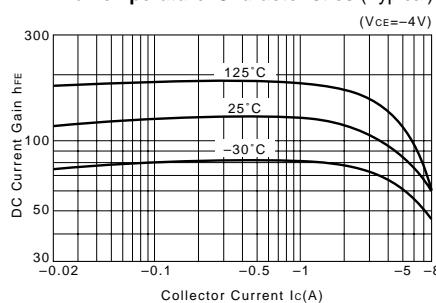
## I<sub>c</sub>-V<sub>BE</sub> Temperature Characteristics (Typical)



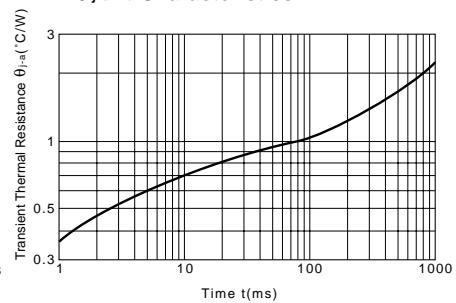
## h<sub>FE</sub>-I<sub>c</sub> Characteristics (Typical)



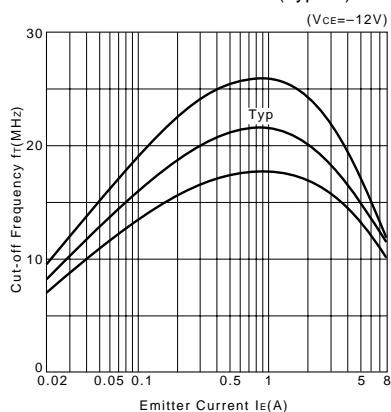
## h<sub>FE</sub>-I<sub>c</sub> Temperature Characteristics (Typical)



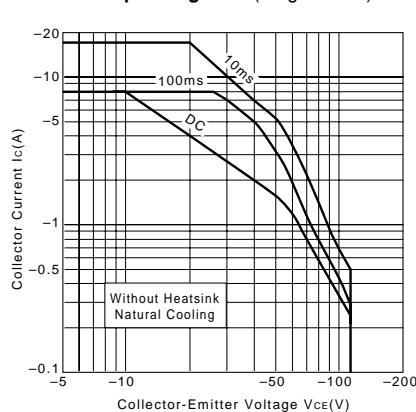
## θ<sub>j-a-t</sub> Characteristics



## f<sub>t</sub>-I<sub>e</sub> Characteristics (Typical)



## Safe Operating Area (Single Pulse)



## Pc-Ta Derating

