# 2SA1694

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

**Application :** Audio and General Purpose

**■Absolute maximum ratings** (Ta=25°C)

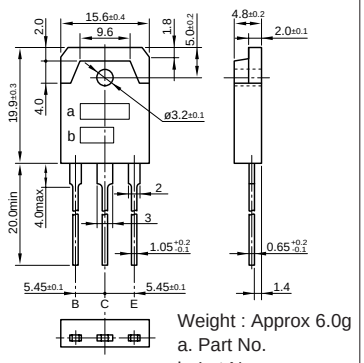
| Symbol | Ratings | Unit |
|---|---|---|
| $V_{CBO}$ | –120 | V |
| $V_{CEO}$ | –120 | V |
| $V_{EBO}$ | –6 | V |
| $I_C$ | –8 | A |
| $I_B$ | –3 | A |
| $P_C$ | 80(Tc=25°C) | W |
| Tj | 150 | °C |
| Tstg | –55 to +150 | °C |

**■Electrical Characteristics** (Ta=25°C)

| Symbol | Conditions | Ratings | Unit |
|---|---|---|---|
| $I_{CBO}$ | $V_{CB}$=–120V | –10max | μA |
| $I_{EBO}$ | $V_{EB}$=–6V | –10max | μA |
| $V_{(BR)CEO}$ | $I_C$=–50mA | –120min | V |
| $h_{FE}$ | $V_{CE}$=–4V, $I_C$=–3A | 50min* | |
| $V_{CE(sat)}$ | $I_C$=–3A, $I_B$=–0.3A | –1.5max | V |
| $f_T$ | $V_{CE}$=–12V, $I_E$=0.5A | 20typ | MHz |
| $C_{OB}$ | $V_{CB}$=–10V, f=1MHz | 300typ | pF |

*$h_{FE}$ Rank O(50 to 100), P(70 to 140), Y(90 to 180)

**External Dimensions** MT-100(TO3P)

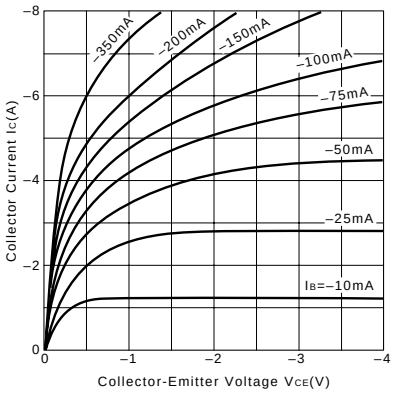



Weight : Approx 6.0g
a. Part No.
b. Lot No.

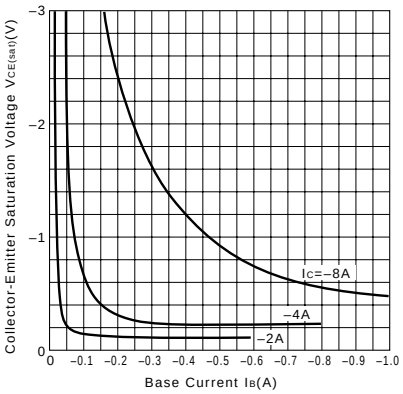
**■Typical Switching Characteristics (Common Emitter)**

| $V_{CC}$ (V) | $R_L$ (Ω) | $I_C$ (A) | $V_{BB1}$ (V) | $V_{BB2}$ (V) | $I_{B1}$ (A) | $I_{B2}$ (A) | ton (μs) | tstg (μs) | tf (μs) |
|---|---|---|---|---|---|---|---|---|---|
| –40 | 10 | –4 | –10 | 5 | –0.4 | 0.4 | 0.14typ | 1.40typ | 0.21typ |

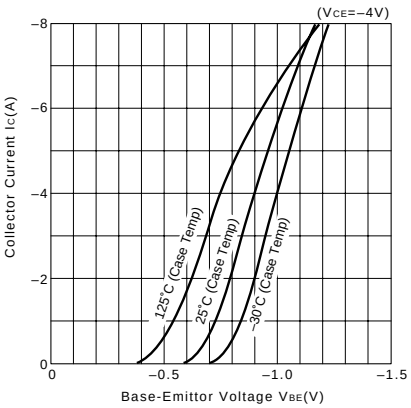
**$I_C$–$V_{CE}$ Characteristics** (Typical)



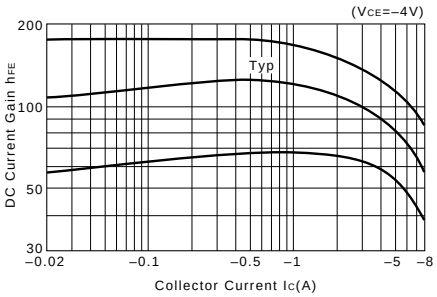

**$V_{CE}$(sat)–$I_B$ Characteristics** (Typical)



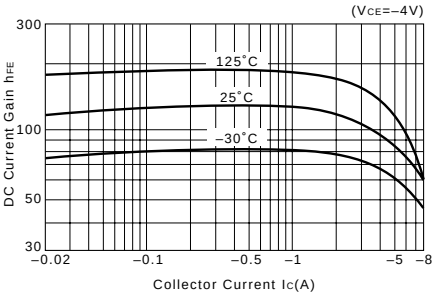

**$I_C$–$V_{BE}$ Temperature Characteristics** (Typical)



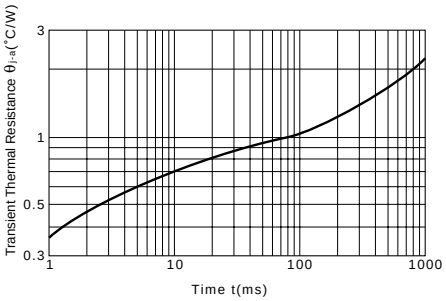

**$h_{FE}$–$I_C$ Characteristics** (Typical)



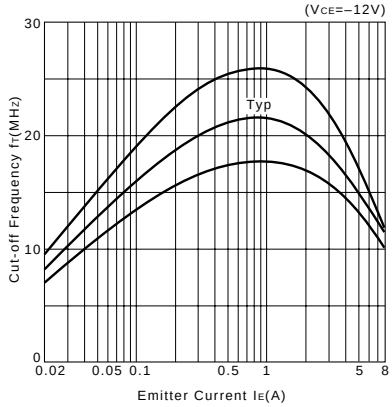

**$h_{FE}$–$I_C$ Temperature Characteristics** (Typical)



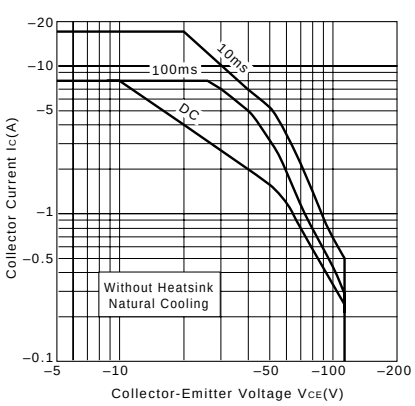

**$\theta_{j\text{-}a}$–t Characteristics**




**$f_T$–$I_E$ Characteristics** (Typical)




**Safe Operating Area** (Single Pulse)




**Pc–Ta Derating**

