# 2SA1673

**Silicon PNP Epitaxial Planar Transistor** (Complement to type 2SC4388)

**Application :** Audio and General Purpose

### Absolute maximum ratings (Ta=25°C)

| Symbol | 2SA1673 | Unit |
|---|---|---|
| $V_{CBO}$ | –180 | V |
| $V_{CEO}$ | –180 | V |
| $V_{EBO}$ | –6 | V |
| $I_C$ | –15 | A |
| $I_B$ | –4 | A |
| $P_C$ | 85(Tc=25°C) | W |
| Tj | 150 | °C |
| Tstg | –55 to +150 | °C |

### Electrical Characteristics (Ta=25°C)

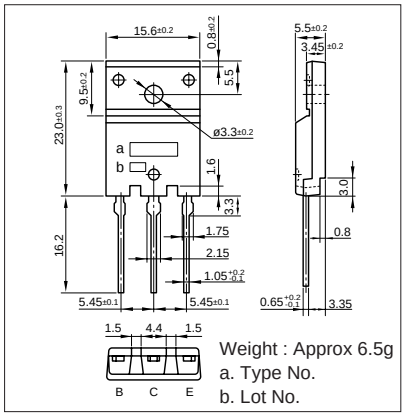
| Symbol | Conditions | 2SA1673 | Unit |
|---|---|---|---|
| $I_{CBO}$ | $V_{CB}$=–180V | –10max | μA |
| $I_{EBO}$ | $V_{EB}$=–6V | –10max | μA |
| $V_{(BR)CEO}$ | $I_C$=–50mA | –180min | V |
| $h_{FE}$ | $V_{CE}$=–4V, $I_C$=–3A | 50min* | |
| $V_{CE(sat)}$ | $I_C$=–5A, $I_B$=–0.5A | –2.0max | V |
| $f_T$ | $V_{CE}$=–12V, $I_E$=0.5A | 20typ | MHz |
| $C_{OB}$ | $V_{CB}$=–10V, f=1MHz | 500typ | pF |

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

### Typical Switching Characteristics (Common Emitter)

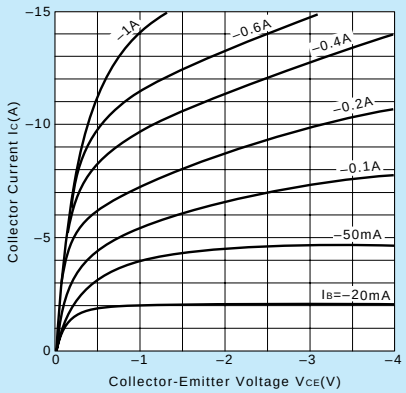
| $V_{CC}$ (V) | $R_L$ (Ω) | $I_C$ (A) | $V_{BB1}$ (V) | $V_{BB2}$ (V) | $I_{B1}$ (A) | $I_{B2}$ (A) | ton (μs) | tstg (μs) | tf (μs) |
|---|---|---|---|---|---|---|---|---|---|
| –40 | 4 | –10 | –10 | 5 | –1 | 1 | 0.6typ | 0.9typ | 0.2typ |

### External Dimensions FM100(TO3PF)

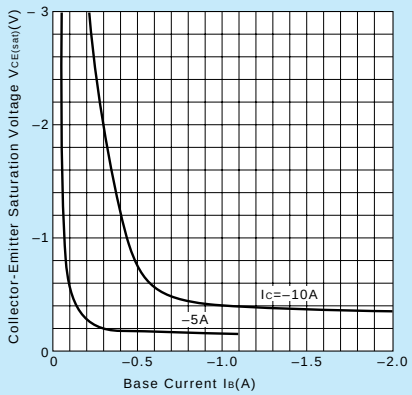



Weight : Approx 6.5g
a. Type No.
b. Lot No.

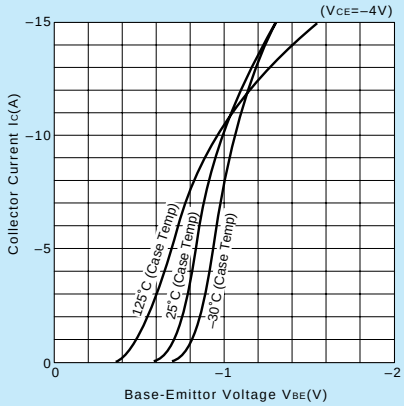
### $I_C$–$V_{CE}$ Characteristics (Typical)



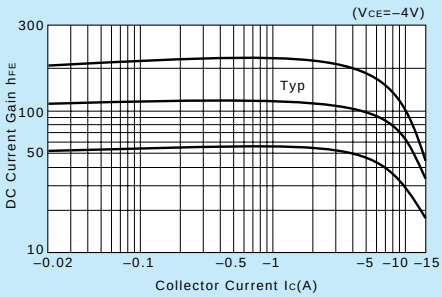

### $V_{CE(sat)}$–$I_B$ Characteristics (Typical)



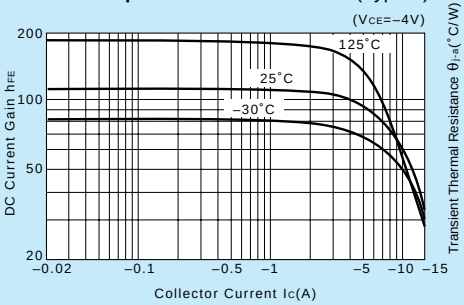

### $I_C$–$V_{BE}$ Temperature Characteristics (Typical)



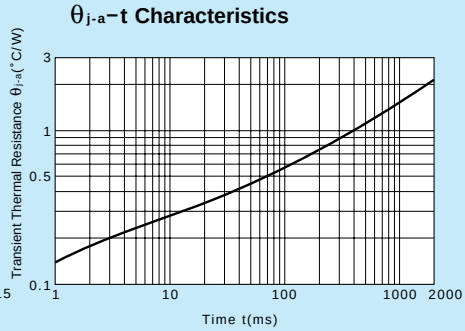

### $h_{FE}$–$I_C$ Characteristics (Typical)



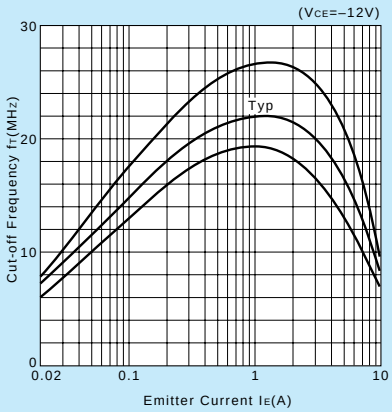

### $h_{FE}$–$I_C$ Temperature Characteristics (Typical)



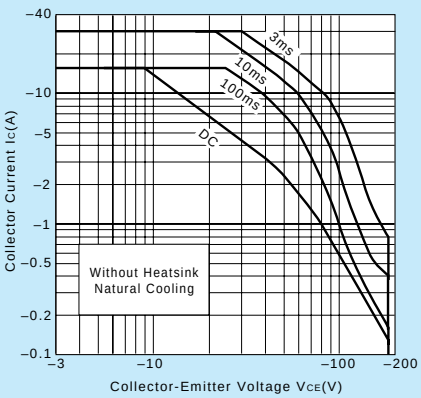

### $\theta_{j\text{-}a}$–t Characteristics

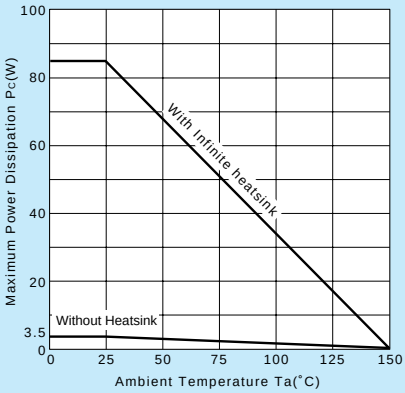



### $f_T$–$I_E$ Characteristics (Typical)




### Safe Operating Area (Single Pulse)




### Pc–Ta Derating