

High h_{FE}
Low $V_{CE(sat)}$

2SC4495

Silicon NPN Triple Diffused Planar Transistor

Application : Audio Temperature Compensation and General Purpose

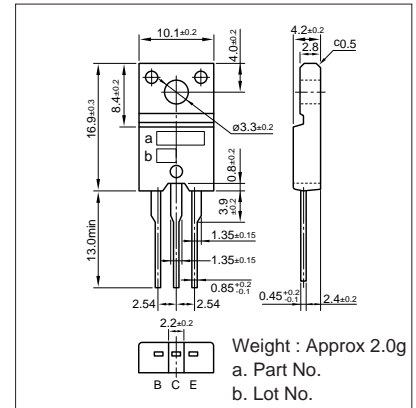
■ Absolute maximum ratings ($T_a=25^\circ\text{C}$)

| Symbol | Ratings | Unit |
|-----------|------------------------------|------------------|
| V_{CBO} | 80 | V |
| V_{CEO} | 50 | V |
| V_{EBO} | 6 | V |
| I_C | 3 | A |
| I_B | 1 | A |
| P_c | 25($T_c=25^\circ\text{C}$) | W |
| T_j | 150 | $^\circ\text{C}$ |
| T_{stg} | -55 to +150 | $^\circ\text{C}$ |

■ Electrical Characteristics ($T_a=25^\circ\text{C}$)

| Symbol | Conditions | Ratings | Unit |
|---------------|---------------------------------------|---------|---------------|
| I_{CBO} | $V_{CB}=80\text{V}$ | 10max | μA |
| I_{EBO} | $V_{EB}=6\text{V}$ | 10max | μA |
| $V_{(BR)CEO}$ | $I_C=25\text{mA}$ | 50min | V |
| h_{FE} | $V_{CE}=4\text{V}, I_C=0.5\text{A}$ | 500min | |
| $V_{CE(sat)}$ | $I_C=1\text{A}, I_B=20\text{mA}$ | 0.5max | V |
| f_T | $V_{CE}=12\text{V}, I_E=-0.1\text{A}$ | 40typ | MHz |
| COB | $V_{CB}=10\text{V}, f=1\text{MHz}$ | 30typ | pF |

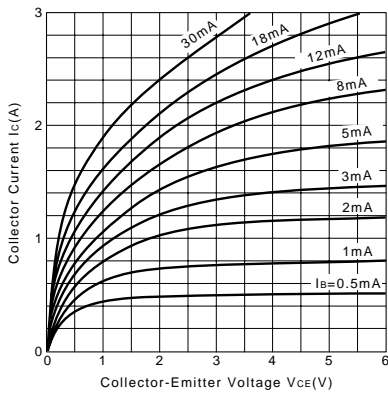
External Dimensions FM20(TO220F)



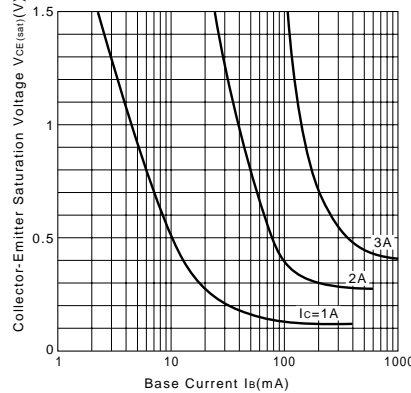
■ Typical Switching Characteristics (Common Emitter)

| V_{CC} (V) | R_L (Ω) | I_C (A) | V_{BB1} (V) | V_{BB2} (V) | I_{B1} (mA) | I_{B2} (mA) | t_{on} (μs) | t_{stg} (μs) | t_f (μs) |
|--------------|--------------------|-----------|---------------|---------------|---------------|---------------|----------------------------|-----------------------------|-------------------------|
| 20 | 20 | 1 | 10 | -5 | 15 | -30 | 0.45typ | 1.60typ | 0.85typ |

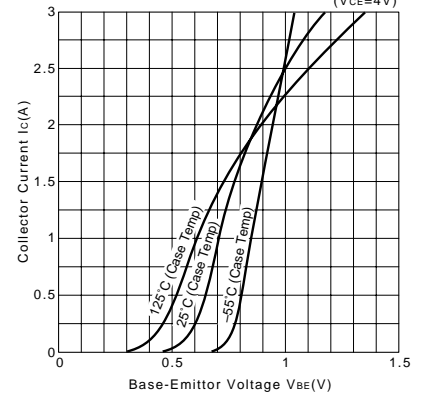
I_C-V_{CE} Characteristics (Typical)



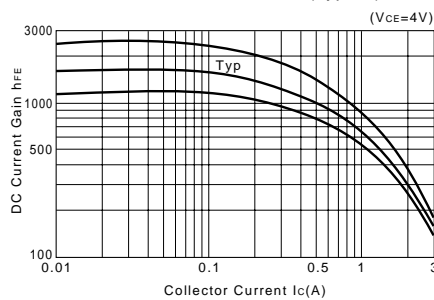
$V_{CE(sat)}-I_B$ Characteristics (Typical)



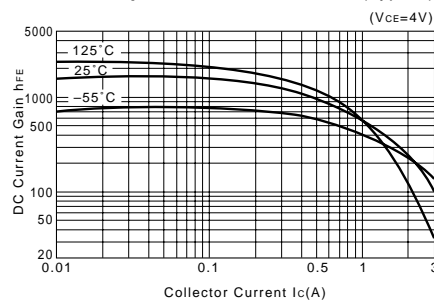
I_C-V_{BE} Temperature Characteristics (Typical)



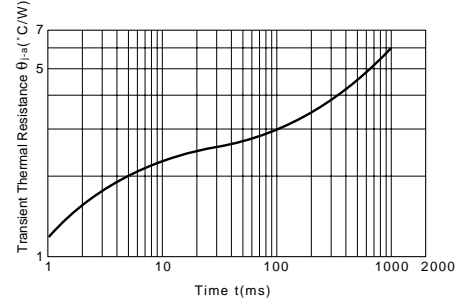
$h_{FE}-I_C$ Characteristics (Typical)



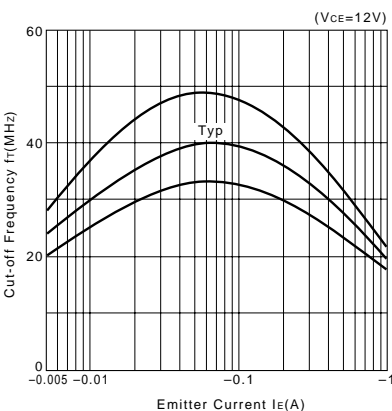
$h_{FE}-I_C$ Temperature Characteristics (Typical)



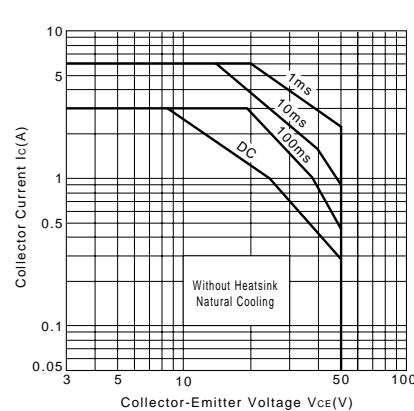
$\theta_{j-a}-t$ Characteristics



f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_c-T_a Derating

