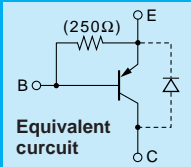


Built-in Diode at C-E
Low $V_{CE}(\text{sat})$

2SA1568



Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC4065)

Application : DC Motor Driver, Chopper Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

| Symbol | 2SA1568 | Unit |
|-----------|-------------|------|
| V_{CBO} | -60 | V |
| V_{CEO} | -60 | V |
| V_{EBO} | -6 | V |
| I_C | ± 12 | A |
| I_B | -3 | A |
| P_C | 35(Tc=25°C) | W |
| T_j | 150 | °C |
| T_{stg} | -55 to +150 | °C |

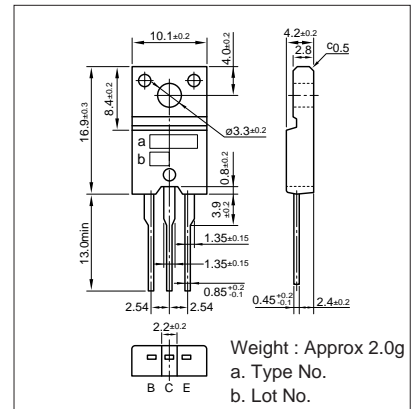
Electrical Characteristics (Ta=25°C)

| Symbol | Conditions | 2SA1568 | Unit |
|---------------|-----------------------------|----------|---------|
| I_{CBO} | $V_{CB} = -60V$ | -100max | μA |
| I_{EBO} | $V_{EB} = -6V$ | -60max | mA |
| $V_{(BR)CEO}$ | $I_C = -25mA$ | -60min | V |
| h_{FE} | $V_{CE} = -1V, I_C = -6A$ | 50min | |
| $V_{CE(sat)}$ | $I_C = -6A, I_B = -0.3A$ | -0.35max | V |
| V_{FEC} | $I_{ECO} = -10A$ | -2.5max | V |
| f_T | $V_{CE} = -12V, I_E = 0.5A$ | 40typ | MHz |
| COB | $V_{CB} = -10V, f = 1MHz$ | 330typ | pF |

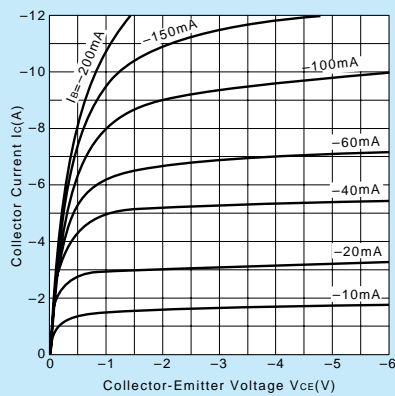
Typical Switching Characteristics (Common Emitter)

| 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) |
|-----------------|-----------------------|--------------|------------------|------------------|------------------|------------------|-------------------------|--------------------------|----------------------|
| -24 | 4 | -6 | -10 | 5 | -120 | 120 | 0.4typ | 0.4typ | 0.2typ |

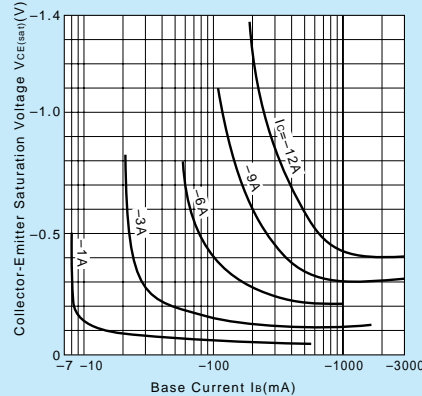
External Dimensions FM20 (TO220F)



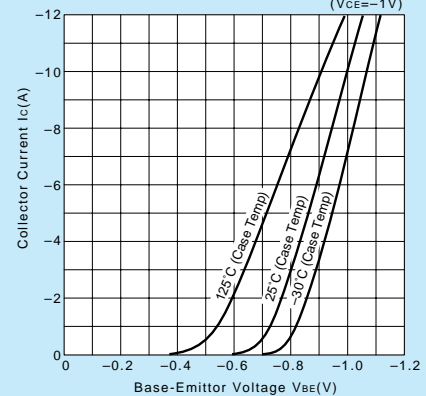
I_C - V_{CE} Characteristics (Typical)



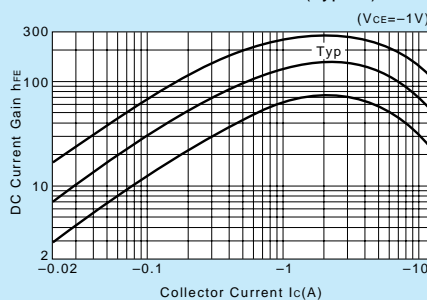
$V_{CE(sat)}$ - I_B Characteristics (Typical)



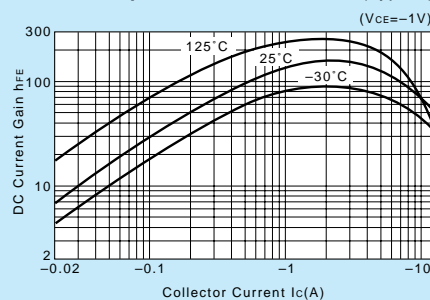
I_C - V_{BE} Temperature Characteristics (Typical)



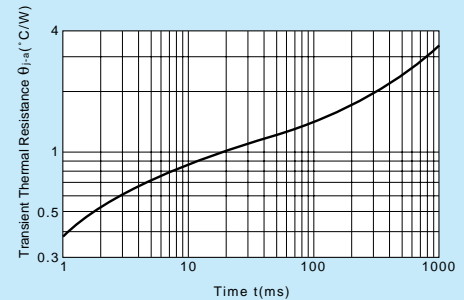
h_{FE} - I_C Characteristics (Typical)



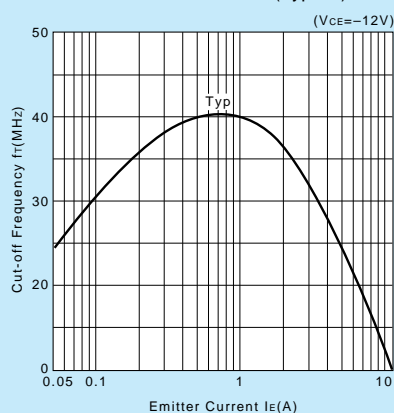
h_{FE} - I_C Temperature Characteristics (Typical)



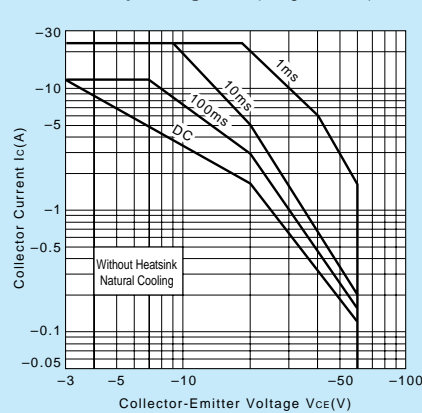
θ_{JA} -t Characteristics



f_T - I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



P_C - T_a Derating

