

SOT-23-3L Plastic-Encapsulate Transistors

MMBTA94 TRANSISTOR (PNP)

FEATURES

Power dissipation

$$P_{CM} : 0.35 \text{ W} \quad (T_{amb}=25^{\circ}\text{C})$$

Collector current

$$I_{CM} : -0.2 \text{ A}$$

Collector-base voltage

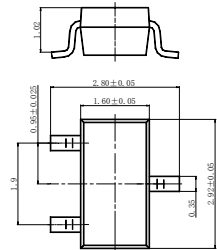
$$V_{(BR)CBO} : -400 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg} : -55^{\circ}\text{C} \text{ to } +150^{\circ}\text{C}$$

SOT-23-3L

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



ELECTRICAL CHARACTERISTICS (Tamb=25 °C unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|--|------|-----|-------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -100 \mu\text{A}, I_E = 0$ | -400 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -1 \text{ mA}, I_B = 0$ | -400 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = -100 \mu\text{A}, I_C = 0$ | -5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = -400 \text{ V}, I_E = 0$ | | | -0.1 | μA |
| Collector cut-off current | I_{CEO} | $V_{CE} = -400 \text{ V}, I_B = 0$ | | | -5 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -4 \text{ V}, I_C = 0$ | | | -0.1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE} = -10\text{V}, I_C = -10 \text{ mA}$ | 80 | | 300 | |
| | $h_{FE(2)}$ | $V_{CE} = -10\text{V}, I_C = -1\text{mA}$ | 70 | | | |
| | $h_{FE(3)}$ | $V_{CE} = -10\text{V}, I_C = -100 \text{ mA}$ | 60 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -10 \text{ mA}, I_B = -1\text{mA}$ | | | -0.2 | V |
| | $V_{CE(sat)}$ | $I_C = -50 \text{ mA}, I_B = -5\text{mA}$ | | | -0.3 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -10 \text{ mA}, I_B = -1 \text{ mA}$ | | | -0.75 | V |
| Transition frequency | f_T | $V_{CE} = -20\text{V}, I_C = -10\text{mA}$ $f = 30\text{MHz}$ | 50 | | | MHz |

MARKING:4D