

MPSA93 TRANSISTOR (PNP)

FEATURES

Power dissipation

$$P_{CM}: 0.625 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

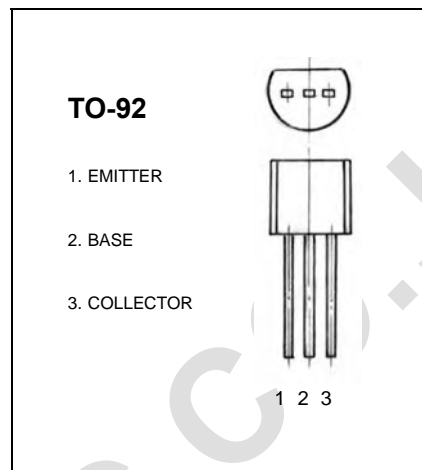
$$I_{CM}: -0.5 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: -200 \text{ V}$$

Operating and storage junction temperature range

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



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

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|-----------------|---|------|-----|-------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -100\mu\text{A}, I_E = 0$ | -200 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}^*$ | $I_C = -1\text{mA}, I_B = 0$ | -200 | | | 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} | $V_{CB} = -160\text{V}, I_E = 0$ | | | -0.25 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -3\text{V}, I_C = 0$ | | | -0.1 | μA |
| DC current gain | h_{FE}^* | $V_{CE} = -10\text{V}, I_C = -1\text{mA}$ | 25 | | | |
| | | $V_{CE} = -10\text{V}, I_C = -10\text{mA}$ | 40 | | | |
| | | $V_{CE} = -10\text{V}, I_C = -30\text{mA}$ | 25 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}^*$ | $I_C = -20\text{mA}, I_B = -2\text{mA}$ | | | -0.4 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}^*$ | $I_C = -20\text{mA}, I_B = -2\text{mA}$ | | | -0.9 | V |
| Transition frequency | f_T | $V_{CE} = -20\text{V}, I_C = -10\text{mA}$ $f = 100\text{MHz}$ | 50 | | | MHz |

* Pulse test: Pulse width $\leq 300\mu\text{s}$, Duty cycle $\leq 2\%$.