

2SB1185 TRANSISTOR (PNP)

FEATURES

Power dissipation

$$P_{CM}: 2 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

$$I_{CM}: -3 \text{ A}$$

Collector-base voltage

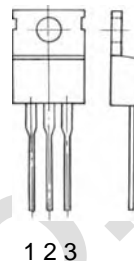
$$V_{(BR)CBO}: -60 \text{ V}$$

Operating and storage junction temperature range

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

TO-220

1. BASE
2. COLLECTOR
3. EMITTER



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

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|---|-----|-----|------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -50\mu\text{A}, I_E = 0$ | -60 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, I_B = 0$ | -50 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = -50\mu\text{A}, I_C = 0$ | 5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = -40\text{V}, I_E = 0$ | | | -1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -4\text{V}, I_C = 0$ | | | -1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE} = -3\text{V}, I_C = -0.5\text{A}$ | 60 | | 320 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -2\text{A}, I_B = -0.2\text{A}$ | | | -1 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -2\text{A}, I_B = -0.2\text{A}$ | | | -1.5 | V |
| Transition frequency | f_T | $V_{CE} = -5\text{V}, I_C = -0.5\text{A}, f = 30\text{MHz}$ | | 70 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$ | | 50 | | pF |

CLASSIFICATION OF $h_{FE(1)}$

| Rank | D | E | F |
|---------|--------|---------|---------|
| Range | 60-120 | 100-200 | 160-320 |
| Marking | | | |