

2SA1700 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM} : 1 \text{ W (Tamb=25°C)}$$

Collector current

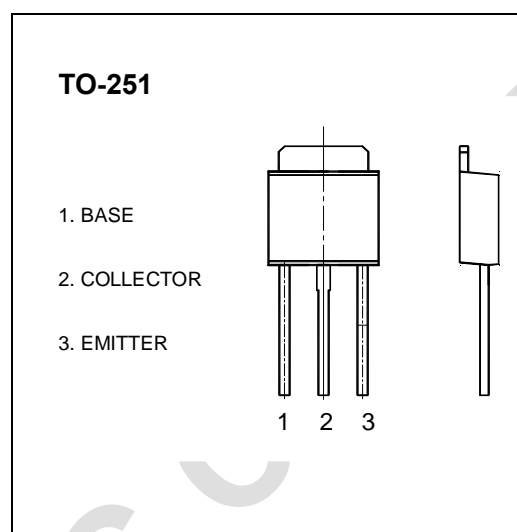
$$I_{CM} : -200 \text{ mA}$$

Collector-base voltage

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

Operating and storage junction temperature range

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



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

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|------------------------------|------|-----|------|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -10\mu A, I_E = 0$ | -400 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -1mA, I_B = 0$ | -400 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = -10\mu A, I_C = 0$ | -5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = -300V, I_E = 0$ | | | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -4V, I_C = 0$ | | | -0.1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE} = -10V, I_C = -50mA$ | 60 | | 200 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -50mA, I_B = -5mA$ | | | -0.6 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -50mA, I_B = -5mA$ | | | -1 | V |
| Transition frequency | f_T | $V_{CE} = -30V, I_C = -10mA$ | | 70 | | MHz |

CLASSIFICATION OF $h_{FE(1)}$

| Rank | D | E |
|-------|--------|---------|
| Range | 60-120 | 100-200 |