

2SC536 TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 400 mW ($T_{amb}=25^{\circ}C$)

Collector current

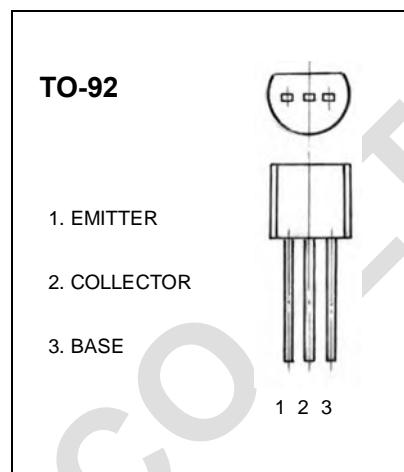
I_{CM} : 100 mA

Collector-base voltage

$V_{(BR)CBO}$: 40 V

Operating and storage junction temperature range

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



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|-----------------------|-----|-----|-----|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=100\mu A, I_E=0$ | 40 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=1mA, I_B=0$ | 30 | | | V |
| Emitter-Base breakdown voltage | $V_{(BR)EBO}$ | $I_E=100\mu A, I_C=0$ | 5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=35V, I_E=0$ | | | 1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=4V, I_C=0$ | | | 1 | μA |
| DC current gain | h_{FE} | $V_{CE}=6V, I_C=1mA$ | 60 | | 960 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=50mA, I_B=5mA$ | | | 0.5 | V |
| Transition frequency | f_T | $V_{CE}=6V, I_C=1mA$ | | 100 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CE}=6V, f=1MHz$ | | 3.5 | | pF |

CLASSIFICATION OF h_{FE}

| Rank | D | E | F | G | H |
|-------|--------|---------|---------|---------|---------|
| Range | 60-120 | 100-200 | 160-320 | 280-560 | 480-960 |