



TO-220 Plastic-Encapsulate Transistors

MJE3055 TRANSISTOR (NPN)

FEATURES

Power dissipation

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

Collector current

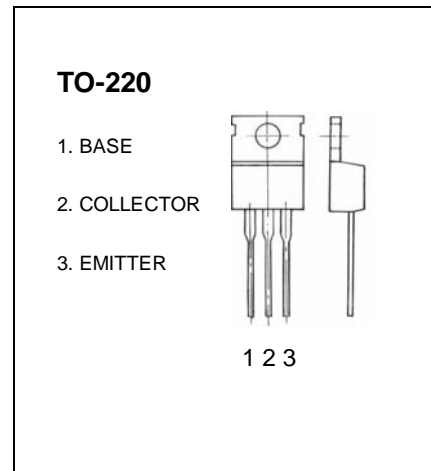
I_{CM} : 10 A

Collector-base voltage

$V_{(BR)CBO}$: 70 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 | $V_{(BR)CBO}$ | $I_C=1mA, I_E=0$ | 70 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=200mA, I_B=0$ | 60 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=1mA, I_C=0$ | 5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=70V, I_E=0$ | | | 1 | mA |
| Collector cut-off current | I_{CEO} | $V_{CE}=30V, I_E=0$ | | | 0.7 | mA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=5V, I_C=0$ | | | 5 | mA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=4V, I_C=4A$ | 20 | | 100 | |
| | $h_{FE(2)}$ | $V_{CE}=4V, I_C=10A$ | 5 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=4A, I_B=400mA$ | | | 1.1 | V |
| | | $I_C=10A, I_B=3.3A$ | | | 8 | V |
| Base-emitter voltage | V_{BE} | $V_{CE}=4V, I_C=4A$ | | | 1.8 | V |
| Transition frequency | f_T | $V_{CE}=10V, I_C=500mA$ | | 2 | | MHz |