

### MJE3055 TRANSISTOR (NPN)

#### FEATURES

Power dissipation

$$P_{CM}: 2 \text{ W (Tamb=25°C)}$$

Collector current

$$I_{CM}: 10 \text{ A}$$

Collector-base voltage

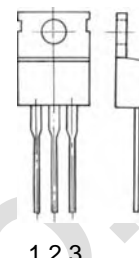
$$V_{(BR)CBO}: 70 \text{ V}$$

Operating and storage junction temperature range

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

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