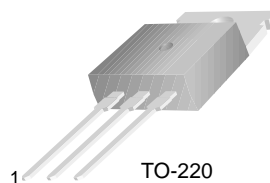


MJE2955T

General Purpose and Switching Applications

- DC Current Gain Specified to $I_C = 10\text{ A}$
- High Current Gain Bandwidth Product : $f_T = 2\text{MHz}$ (Min.)



TO-220
1.Base 2.Collector 3.Emitter

PNP Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-----------|--|------------|------------------|
| V_{CBO} | Collector-Base Voltage | - 70 | V |
| V_{CEO} | Collector-Emitter Voltage | - 60 | V |
| V_{EBO} | Emitter-Base Voltage | - 5 | V |
| I_C | Collector Current | - 10 | A |
| I_B | Base Current | - 6 | A |
| P_C | Collector Dissipation ($T_C=25^\circ\text{C}$) | 75 | W |
| P_C | Collector Dissipation ($T_a=25^\circ\text{C}$) | 0.6 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{STG} | Storage Temperature | - 55 ~ 150 | $^\circ\text{C}$ |

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Max. | Units |
|----------------------|--|--|---------|------------|---------------|
| BV_{CEO} | Collector- Emitter Breakdown Voltage | $I_C = - 200\text{mA}, I_B = 0$ | -60 | | V |
| I_{CEO} | Collector Cut-off Current | $V_{CE} = - 30\text{V}, I_B = 0$ | | -700 | μA |
| I_{CEX1} | Collector Cut-off Current | $V_{CE} = - 70\text{V}, V_{BE}(\text{off}) = 1.5\text{V}$ | | -1 | mA |
| I_{CEX2} | Collector Cut-off Current | $V_{CE} = - 70\text{V}, V_{BE}(\text{off}) = 1.5\text{V}$ @ $T_C = 150^\circ\text{C}$ | | -5 | mA |
| I_{EBO} | Emitter Cut-off Current | $V_{EB} = - 5\text{V}, I_C = 0$ | | -5 | mA |
| h_{FE} | * DC Current Gain | $V_{CE} = - 4\text{V}, I_C = - 4\text{A}$ $V_{CE} = - 4\text{V}, I_C = - 10\text{A}$ | 20 5 | 100 | |
| $V_{CE}(\text{sat})$ | * Collector-Emitter Saturation Voltage | $I_C = - 4\text{A}, I_B = - 0.4\text{A}$ $I_C = - 10\text{A}, I_B = - 3.3\text{A}$ | | -1.1 -8 | V V |
| $V_{BE}(\text{on})$ | * Base-Emitter ON Voltage | $V_{CE} = - 4\text{V}, I_C = - 4\text{A}$ | | -1.8 | V |
| f_T | Current Gain Bandwidth Product | $V_{CE} = - 10\text{V}, I_C = - 500\text{mA}$ | 2 | | MHz |

* Pulse test: $PW \leq 300\mu\text{s}$, duty cycle $\leq 2\%$ Pulse

Typical Characteristic

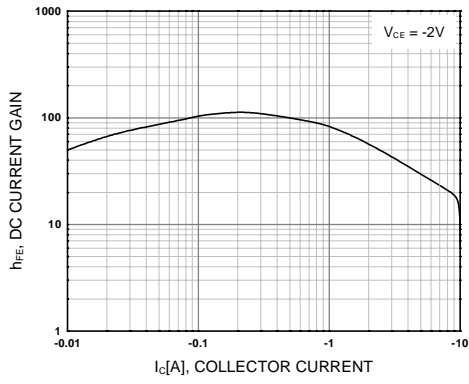


Figure 1. DC current Gain

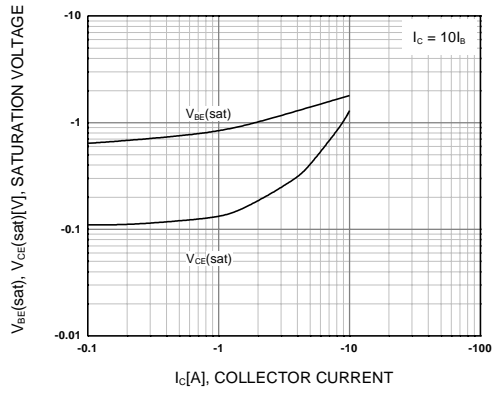


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

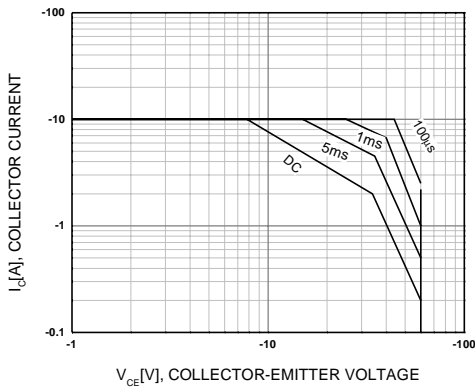


Figure 3. Safe Operating Area

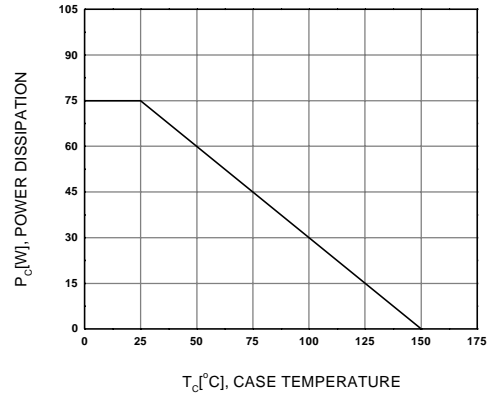


Figure 4. Power Derating

Package Dimensions

MJE2955T

TO-220



Dimensions in Millimeters

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