

Silicon PNP Power Transistor

MJE15033

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -250V(\text{Min})$
- DC current gain -
: $h_{FE} = 50 (\text{Min}) @ I_C = -0.5 A$
: $h_{FE} = 10 (\text{Min}) @ I_C = -2.0 A$
- Complement to Type MJE15032

APPLICATIONS

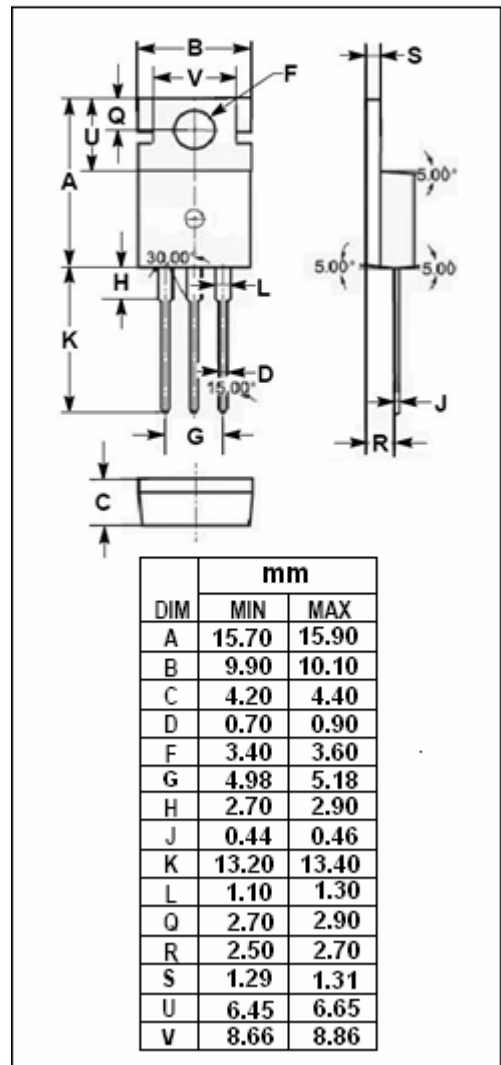
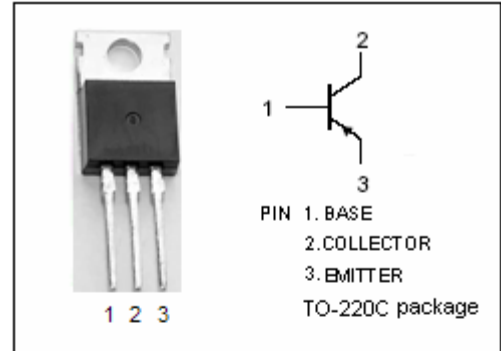
- Designed for use as high-frequency drivers in audio amplifiers.

ABSOLUTE MAXIMUM RATINGS (Ta=25)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------|
| V_{CBO} | Collector-Base Voltage | -250 | V |
| V_{CEO} | Collector-Emitter Voltage | -250 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current -Continuous | -8 | A |
| I_{CM} | Collector Current-Peak | -16 | A |
| I_B | Base Current | -2 | A |
| P_C | Collector Power Dissipation @ $T_a=25$ | 2 | W |
| | Collector Power Dissipation @ $T_C=25$ | 50 | |
| T_j | Junction Temperature | 150 | |
| T_{stg} | Storage Temperature | -65~150 | |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|--------------|---|------|------|
| $R_{th j-c}$ | Thermal Resistance, Junction to Case | 2.5 | /W |
| $R_{th j-a}$ | Thermal Resistance, Junction to Ambient | 62.5 | /W |



Silicon PNP Power Transistor

MJE15033

ELECTRICAL CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|-----------------------|--------------------------------------|--|------|------|------|
| V _{CEO(SUS)} | Collector-Emitter Sustaining Voltage | I _C = -10mA ; I _B = 0 | -250 | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = -1A ; I _B = -0.1A | | -0.5 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _C = -1A ; V _{CE} = -5V | | -1.0 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = -150V; I _E = 0 | | -10 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = -5V; I _C = 0 | | -10 | μ A |
| h _{FE-1} | DC Current Gain | I _C = -0.5A ; V _{CE} = -5V | 50 | | |
| h _{FE-2} | DC Current Gain | I _C = -1A ; V _{CE} = -5V | 50 | | |
| h _{FE-3} | DC Current Gain | I _C = -2A ; V _{CE} = -5V | 10 | | |
| f _T | Current Gain-Bandwidth Product | I _C = -0.5A; V _{CE} = -10V; f _{test} = 1.0MHz | 30 | | MHz |