

isc Silicon PNP Power Transistor

MJE2901T

DESCRIPTION

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -60V(\text{Min})$
- High DC Current Gain-  
:  $h_{FE} = 25-100@I_C = -3A$
- Complement to Type MJE2801T

APPLICATIONS

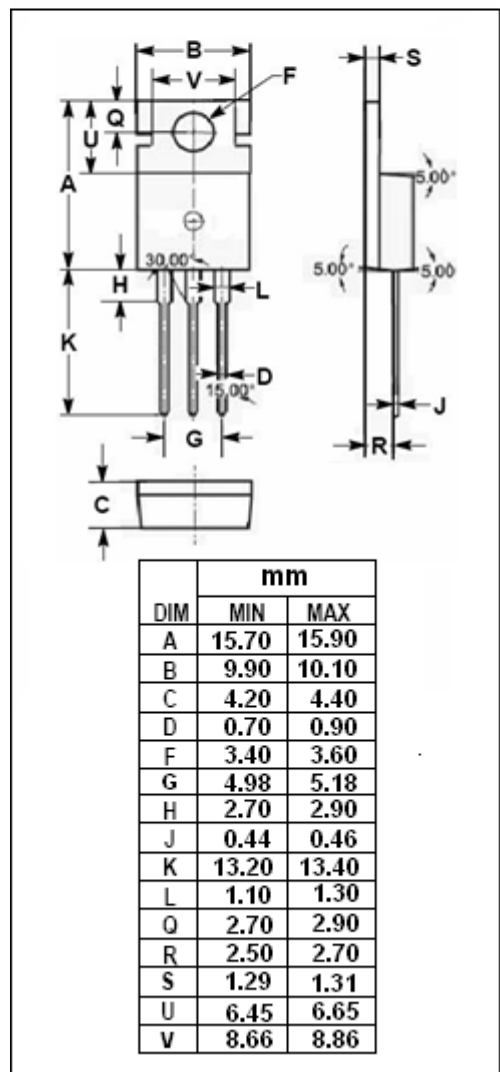
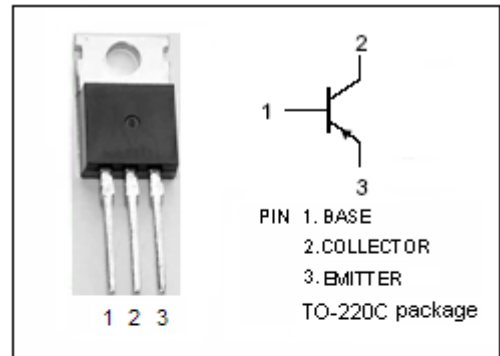
- Designed for use as an output device in complementary audio amplifiers up to 35 watts music power per channel.

ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

| SYMBOL    | PARAMETER   | VALUE   | UNIT             |
|-----------|---|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | -60     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | -60     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | -4      | V                |
| $I_C$     | Collector Current-Continuous                            | -10     | A                |
| $I_B$     | Base Current-Continuous                                 | -5      | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^\circ\text{C}$ | 75      | W                |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL        | PARAMETER                            | MAX  | UNIT               |
|---------------|--------------------------------------|------|--------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.67 | $^\circ\text{C/W}$ |



**isc Silicon PNP Power Transistor****MJE2901T****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS  | MIN | TYP. | MAX          | UNIT |
|---------------|--------------------------------------|---|-----|------|--------------|------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage  | $I_C = -200\text{mA}; I_B = 0$  | -60 |      |              | V    |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -4\text{A}; I_B = -0.4\text{A}$  |     |      | -1.1         | V    |
| $V_{BE(on)}$  | Base-Emitter On Voltage              | $I_C = -3\text{A}; V_{CE} = -2\text{V}$   |     |      | -1.4         | V    |
| $I_{CBO}$     | Collector Cutoff Current             | $V_{CB} = -60\text{V}; I_E = 0$<br>$V_{CB} = -60\text{V}; I_E = 0; T_C = 150^{\circ}\text{C}$ |     |      | -0.1<br>-2.0 | mA   |
| $I_{EBO}$     | Emitter Cutoff Current               | $V_{EB} = -4\text{V}; I_C = 0$  |     |      | -1.0         | mA   |
| $h_{FE}$      | DC Current Gain                      | $I_C = -3\text{A}; V_{CE} = -2\text{V}$   | 25  |      | 100          |      |