

## isc Silicon PNP Power Transistor

BD808

## DESCRIPTION

- DC Current Gain -  
:  $h_{FE} = 30 @ I_C = -2A$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = -60V(\text{Min})$
- Complement to Type BD807
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

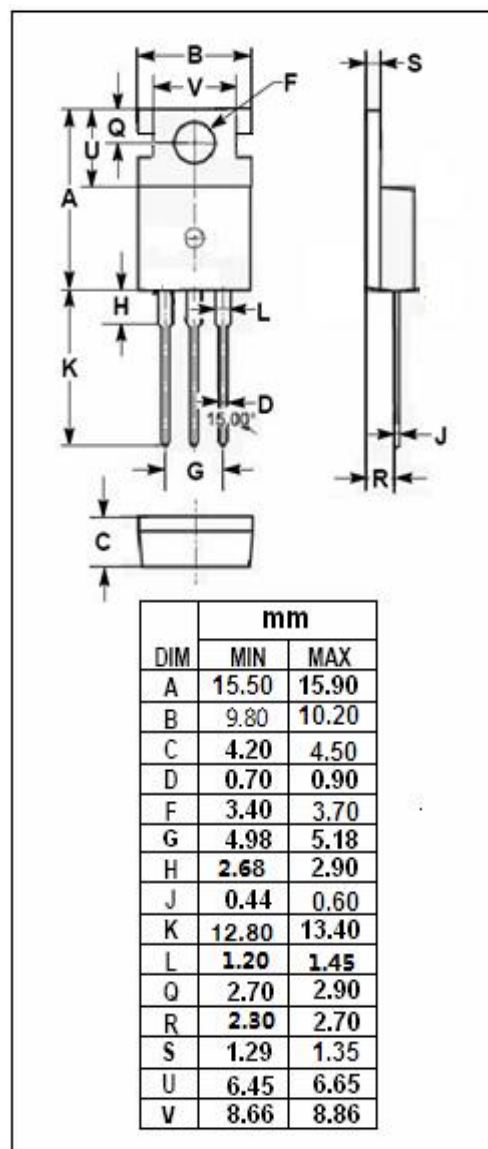
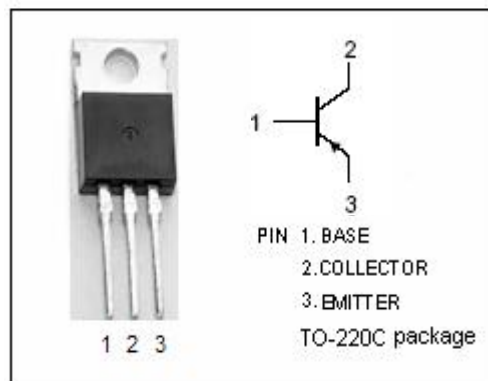
- Designed for use in high power audio amplifiers utilizing complementary or quasi complementary circuits.

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

| SYMBOL    | PARAMETER                                                 | VALUE   | UNIT             |
|-----------|-----------------------------------------------------------|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                    | -70     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                                 | -60     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                      | -5      | V                |
| $I_C$     | Collector Current-Continuous                              | -10     | A                |
| $I_B$     | Base Current                                              | -6      | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C = 25^\circ\text{C}$ | 90      | 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 | 1.39 | $^\circ\text{C/W}$ |



**isc Silicon PNP Power Transistor****BD808****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

| SYMBOL                | PARAMETER                            | CONDITIONS                                                                  | MIN | MAX  | UNIT |
|-----------------------|--------------------------------------|-----------------------------------------------------------------------------|-----|------|------|
| V <sub>CEQ(SUS)</sub> | Collector-Emitter Sustaining Voltage | I <sub>C</sub> = -30mA ; I <sub>B</sub> = 0                                 | -60 |      | V    |
| V <sub>CE(sat)</sub>  | Collector-Emitter Saturation Voltage | I <sub>C</sub> = -4A; I <sub>B</sub> = -0.4A                                |     | -1.1 | V    |
| V <sub>BE(on)</sub>   | Base-Emitter On Voltage              | I <sub>C</sub> = -4A ; V <sub>CE</sub> = -2V                                |     | -1.6 | V    |
| I <sub>CBO</sub>      | Collector Cutoff Current             | V <sub>CB</sub> = -70V; I <sub>E</sub> = 0                                  |     | -1.0 | mA   |
| I <sub>EBO</sub>      | Emitter Cutoff Current               | V <sub>EB</sub> = -5V; I <sub>C</sub> = 0                                   |     | -2.0 | mA   |
| h <sub>FE-1</sub>     | DC Current Gain                      | I <sub>C</sub> = -2A ; V <sub>CE</sub> = -2V                                | 30  |      |      |
| h <sub>FE-2</sub>     | DC Current Gain                      | I <sub>C</sub> = -4A ; V <sub>CE</sub> = -2V                                | 15  |      |      |
| f <sub>T</sub>        | Current-Gain—Bandwidth Product       | I <sub>C</sub> = -1.0A ; V <sub>CE</sub> = -10V; f <sub>test</sub> = 1.0MHz | 1.5 |      | MHz  |

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