

Silicon PNP Power Transistors

BD810

DESCRIPTION

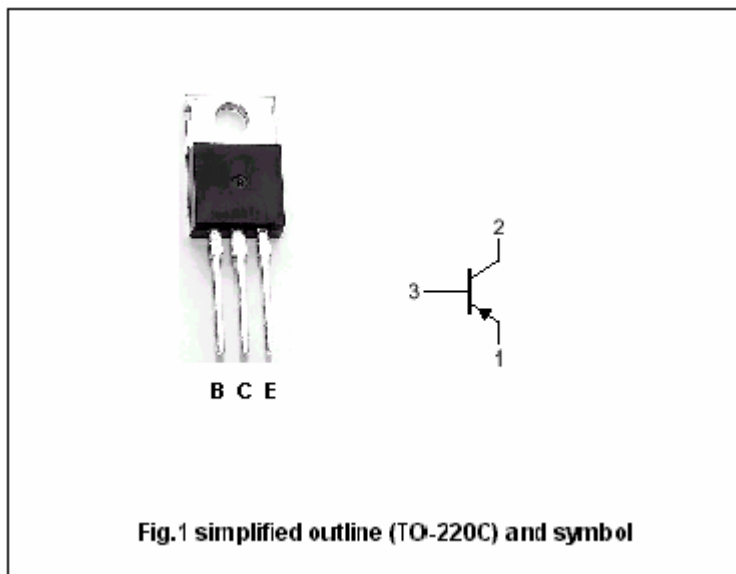
- With TO-220C package
- Complement to type BD809
- DC current gain
: $h_{FE} = 30$ (Min) @ $I_C = 2.0$ Adc

APPLICATIONS

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

PINNING

| PIN | DESCRIPTION |
|-----|--------------------------------------|
| 1 | Emitter |
| 2 | Collector;connected to mounting base |
| 3 | Base |

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|---------------------------|------------------------|---------|------------------|
| V_{CBO} | Collector-base voltage | Open emitter | -80 | V |
| V_{CEO} | Collector-emitter voltage | Open base | -80 | V |
| V_{EBO} | Emitter-base voltage | Open collector | -5 | V |
| I_C | Collector current | | -10 | A |
| I_B | Base current | | -6 | A |
| P_D | Total power dissipation | $T_C=25^\circ\text{C}$ | 90 | W |
| T_j | Junction temperature | | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage temperature | | -55~150 | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|-------------------------------------|------|---------------------------|
| $R_{th\ j-c}$ | Thermal resistance junction to case | 1.39 | $^\circ\text{C}/\text{W}$ |

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CHARACTERISTICS

T_j=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|---|-----|------|------|------|
| V _{CEO(SUS)} | Collector-emitter sustaining voltage | I _C =-0.1A; I _B =0 | -80 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =-3 A; I _B =-0.3 A | | | -1.1 | V |
| V _{BE} | Base-emitter voltage | I _C =-4A ; V _{CE} =-2V | | | -1.6 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =-80V; I _E =0 | | | -1.0 | mA |
| I _{EBO} | Emitter cut-off current | V _{EB} =-5V; I _C =0 | | | -2.0 | mA |
| h _{FE-1} | DC current gain | I _C =-2A ; V _{CE} =-2V | 30 | | | |
| h _{FE-2} | DC current gain | I _C =-4A ; V _{CE} =-2V | 15 | | | |
| f _T | Transition frequency | I _C =-1A ; V _{CE} =-10V; f=1.0MHz | 1.5 | | | MHz |

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PACKAGE OUTLINE

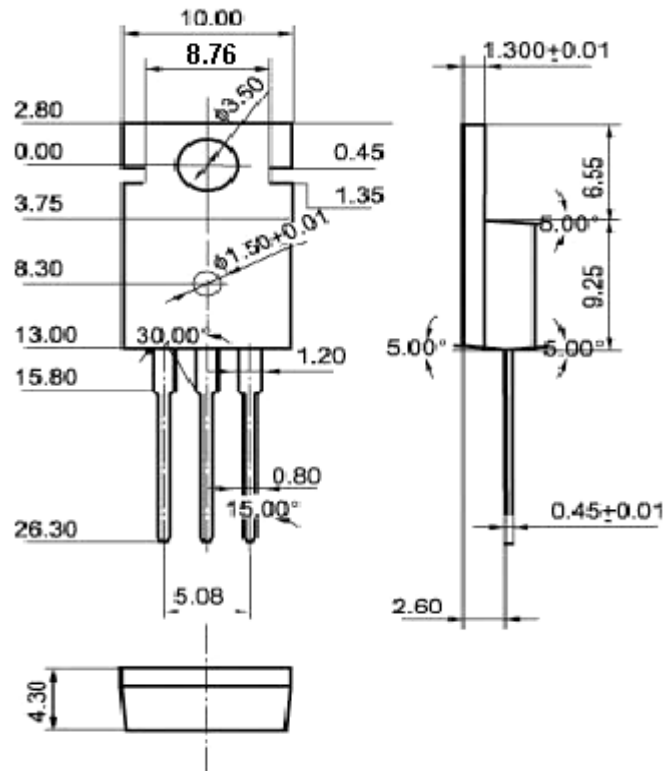


Fig.2 Outline dimensions (unindicated tolerance: ± 0.10 mm)