

## Silicon PNP Power Transistors

## BD244/A/B/C

## DESCRIPTION

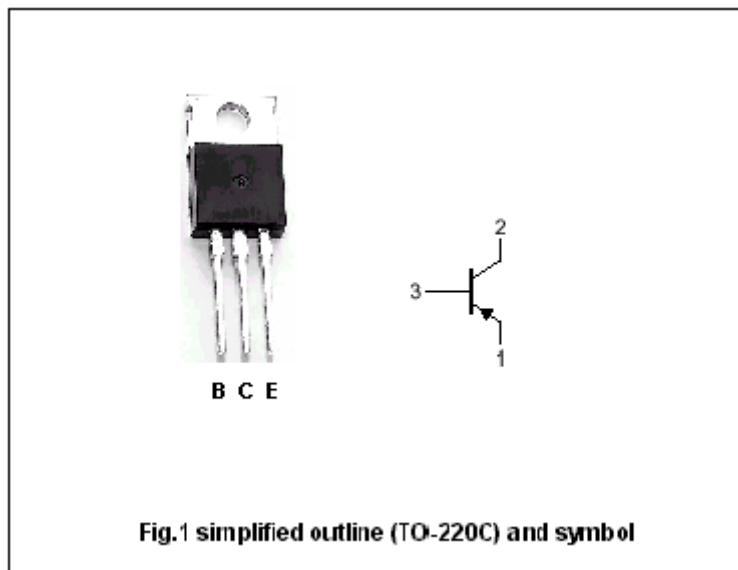
- With TO-220C package
- Complement to type BD243/A/B/C

## APPLICATIONS

- For medium power linear and switching applications

## PINNING

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



## Absolute maximum ratings (Ta=25°C)

| SYMBOL           | PARAMETER                   | CONDITIONS           | VALUE   | UNIT |
|------------------|-----------------------------|----------------------|---------|------|
| V <sub>CBO</sub> | Collector-base voltage      | BD244                | -45     | V    |
|                  |                             | BD244A               | -60     |      |
|                  |                             | BD244B               | -80     |      |
|                  |                             | BD244C               | -100    |      |
| V <sub>CEO</sub> | Collector-emitter voltage   | BD244                | -45     | V    |
|                  |                             | BD244A               | -60     |      |
|                  |                             | BD244B               | -80     |      |
|                  |                             | BD244C               | -100    |      |
| V <sub>EBO</sub> | Emitter-base voltage        | Open collector       | -5      | V    |
| I <sub>C</sub>   | Collector current           |                      | -6      | A    |
| I <sub>CM</sub>  | Collector current-peak      |                      | -10     | A    |
| I <sub>B</sub>   | Base current                |                      | -2      | A    |
| P <sub>C</sub>   | Collector power dissipation | T <sub>C</sub> =25°C | 65      | W    |
| T <sub>j</sub>   | Junction temperature        |                      | 150     | °C   |
| T <sub>stg</sub> | Storage temperature         |                      | -65~150 | °C   |

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

| SYMBOL                | PARAMETER                            | CONDITIONS                                   | MIN  | TYP. | MAX  | UNIT |    |
|-----------------------|--------------------------------------|--|--|------|------|------|----|
| V <sub>CEO(SUS)</sub> | Collector-emitter sustaining voltage | BD244  | -45  |      |      | V    |    |
|                       |                                      | BD244A                                       | -60  |      |      |      |    |
|                       |                                      | BD244B                                       | -80  |      |      |      |    |
|                       |                                      | BD244C                                       | -100                                       |      |      |      |    |
| V <sub>CEsat</sub>    | Collector-emitter saturation voltage | I <sub>C</sub> =-6A; I <sub>B</sub> =-1 A    |  |      | -1.5 | V    |    |
| V <sub>BE</sub>       | Base-emitter on voltage              | I <sub>C</sub> =-6A ; V <sub>CE</sub> =-4V   |  |      | -2.0 | V    |    |
| I <sub>CEO</sub>      | Collector cut-off current            | BD244/A                                      | V <sub>CE</sub> =-30V; I <sub>B</sub> =0   |      |      | -0.7 | mA |
|                       |                                      | BD244B/C                                     | V <sub>CE</sub> =-60V; I <sub>B</sub> =0   |      |      |      |    |
| I <sub>CES</sub>      | Collector cut-off current            | BD244  | V <sub>CE</sub> =-45V; V <sub>BE</sub> =0  |      |      | -0.4 | mA |
|                       |                                      | BD244A                                       | V <sub>CE</sub> =-60V; V <sub>BE</sub> =0  |      |      |      |    |
|                       |                                      | BD244B                                       | V <sub>CE</sub> =-80V; V <sub>BE</sub> =0  |      |      |      |    |
|                       |                                      | BD244C                                       | V <sub>CE</sub> =-100V; V <sub>BE</sub> =0 |      |      |      |    |
| I <sub>EBO</sub>      | Emitter cut-off current              | V <sub>EB</sub> =-5V; I <sub>C</sub> =0      |  |      | 1    | mA   |    |
| h <sub>FE-1</sub>     | DC current gain                      | I <sub>C</sub> =-0.3A ; V <sub>CE</sub> =-4V | 30   |      |      |      |    |
| h <sub>FE-2</sub>     | DC current gain                      | I <sub>C</sub> =-3A ; V <sub>CE</sub> =-4V   | 15   |      |      |      |    |

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PACKAGE OUTLINE

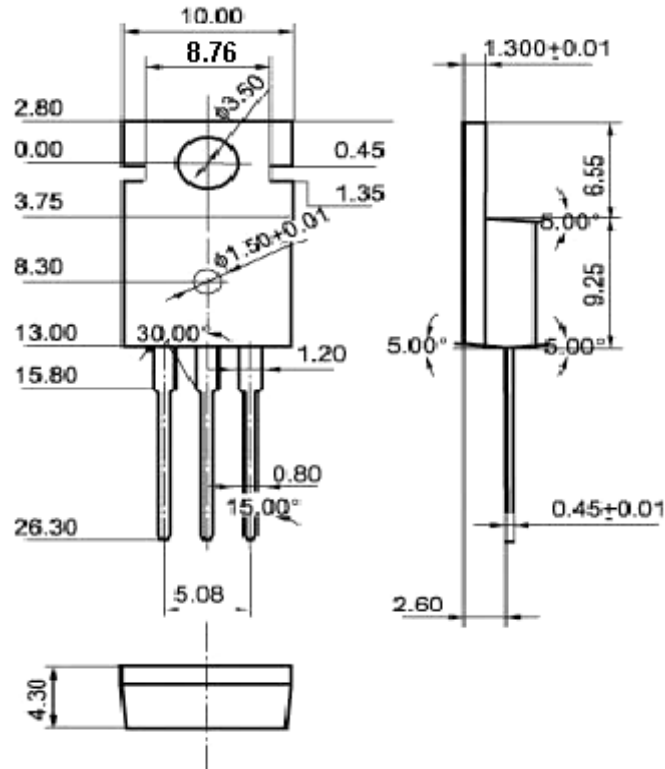


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)