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BD244/A/B/C

Medium Power Linear and Switching Applications

• Complement to BD243, BD243A, BD243B and BD243C respectively



1.Base 2.Collector 3.Emitter

Rev. A, February 2000

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^{\circ}C$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|------------------|--|------------|-------|
| V _{CBO} | Collector-Base Voltage | | |
| | : BD244 | - 45 | V |
| | : BD244A | - 60 | V |
| | : BD244B | - 80 | V |
| | : BD244C | - 100 | V |
| V _{CEO} | Collector-Emitter Voltage | | |
| | : BD244 | - 45 | V |
| | : BD244A | - 60 | V |
| | : BD244B | - 80 | V |
| | : BD244C | - 100 | V |
| V _{EBO} | Emitter-Base Voltage | - 5 | V |
| I _C | Collector Current (DC) | - 6 | А |
| I _{CP} | *Collector Current (Pulse) | - 10 | Α |
| I _B | Base Current | - 2 | А |
| P _C | Collector Dissipation (T _C =25°C) | 65 | W |
| TJ | Junction Temperature | 150 | °C |
| T _{STG} | Storage Temperature | - 65 ~ 150 | °C |

Electrical Characteristics $T_C=25$ °C unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Тур. | Max. | Units |
|--|--|--------------------------------|-------|------|-------|-------|
| V _{CEO} (sus) | * Collector-Emitter Sustaining Voltage | | | | | _ |
| | : BD244 | $I_C = -30 \text{mA}, I_B = 0$ | - 45 | | | V |
| | : BD244A | | - 60 | | | V |
| | : BD244B | | - 80 | | | V |
| | : BD244C | | - 100 | | | V |
| I _{CEO} | Collector Cut-off Current : BD244/244A | $V_{CE} = -30V, I_{B} = 0$ | | | - 0.7 | mA |
| | : BD244B/244C | $V_{CE} = -60V, I_{B} = 0$ | | | - 0.7 | mA |
| I _{CES} | Collector Cut-off Current : BD244 | $V_{CE} = -45V, V_{BE} = 0$ | | | - 0.4 | mA |
| | : BD244A | $V_{CE} = -60V, V_{BE} = 0$ | | | - 0.4 | mA |
| | : BD244B | $V_{CE} = -80V, V_{BE} = 0$ | | | - 0.4 | mA |
| | : BD244C | $V_{CE} = -100V, V_{BE} = 0$ | | | - 0.4 | mA |
| I _{EBO} | Emitter Cut-off Current | $V_{EB} = -5V, I_{C} = 0$ | | | - 1 | mA |
| h _{FE} | * DC Current Gain | $V_{CE} = -4V, I_{C} = -0.3A$ | 30 | | | |
| | | $V_{CE} = -4V, I_{C} = -3A$ | 15 | | | |
| V _{CE} (sat) | * Collector-Emitter Saturation Voltage | $I_C = -6A, I_B = -1A$ | | | - 1.5 | V |
| V _{BE} (on) | * Base-Emitter ON Voltage | $V_{CE} = -4V, I_{C} = -6A$ | | | - 2 | V |
| * Pulse Test: PW =300µs, duty Cycle =2% Pulsed | | | | | | |

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Typical Characteristics

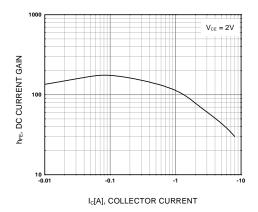


Figure 1. DC current Gain

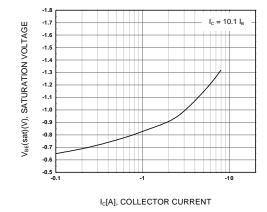


Figure 2. Base-Emitter Saturation Voltage

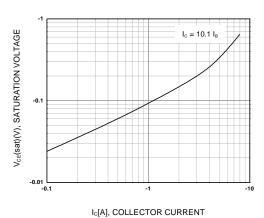


Figure 3. Collector-Emitter Saturation Voltage

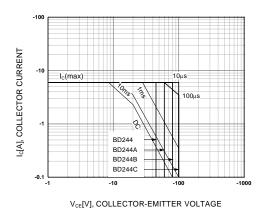


Figure 4. Safe Operating Area

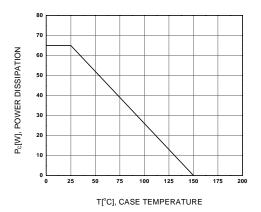
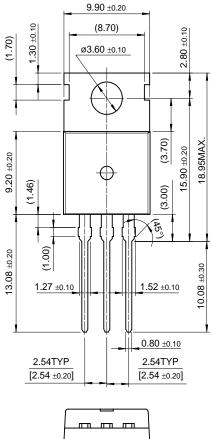


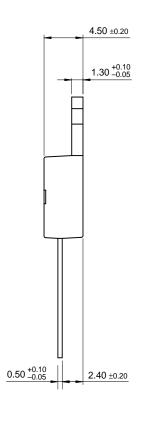
Figure 5. Power Derating

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Package Demensions

TO-220





10.00 ±0.20

Dimensions in Millimeters

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