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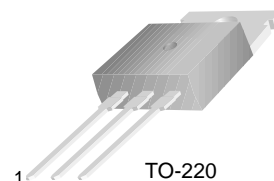
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BD244/A/B/C

Medium Power Linear and Switching Applications

- Complement to BD243, BD243A, BD243B and BD243C respectively



TO-220
1.Base 2.Collector 3.Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ 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 | A |
| I_{CP} | *Collector Current (Pulse) | - 10 | A |
| I_B | Base Current | - 2 | A |
| P_C | Collector Dissipation ($T_C=25^\circ\text{C}$) | 65 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{STG} | Storage Temperature | - 65 ~ 150 | $^\circ\text{C}$ |

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Typ. | 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 | $V_{CE} = - 30\text{V}, I_B = 0$ | | | - 0.7 | mA |
| | : BD244/244A | $V_{CE} = - 60\text{V}, I_B = 0$ | | | - 0.7 | mA |
| I_{CES} | Collector Cut-off Current | | | | - 0.4 | mA |
| | : BD244 | $V_{CE} = - 45\text{V}, V_{BE} = 0$ | | | - 0.4 | mA |
| | : BD244A | $V_{CE} = - 60\text{V}, V_{BE} = 0$ | | | - 0.4 | mA |
| | : BD244B | $V_{CE} = - 80\text{V}, V_{BE} = 0$ | | | - 0.4 | mA |
| | : BD244C | $V_{CE} = - 100\text{V}, V_{BE} = 0$ | | | - 0.4 | mA |
| I_{EBO} | Emitter Cut-off Current | $V_{EB} = - 5\text{V}, I_C = 0$ | | | - 1 | mA |
| h_{FE} | * DC Current Gain | | 30 | | | |
| | | $V_{CE} = - 4\text{V}, I_C = - 0.3\text{A}$ $V_{CE} = - 4\text{V}, I_C = - 3\text{A}$ | 15 | | | |
| $V_{CE(sat)}$ | * Collector-Emitter Saturation Voltage | $I_C = - 6\text{A}, I_B = - 1\text{A}$ | | | - 1.5 | V |
| $V_{BE(on)}$ | * Base-Emitter ON Voltage | $V_{CE} = - 4\text{V}, I_C = - 6\text{A}$ | | | - 2 | V |

* Pulse Test: PW = 300 μs , duty Cycle = 2% Pulsed

Typical Characteristics

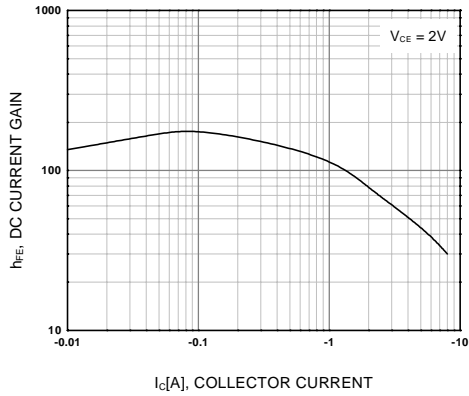


Figure 1. DC current Gain

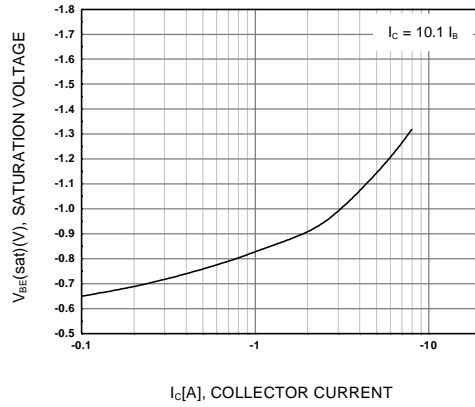


Figure 2. Base-Emitter Saturation Voltage

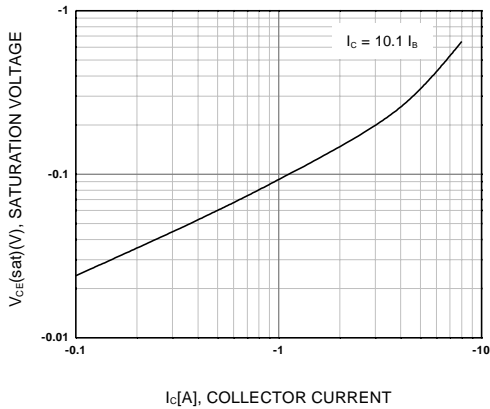


Figure 3. Collector-Emitter Saturation Voltage

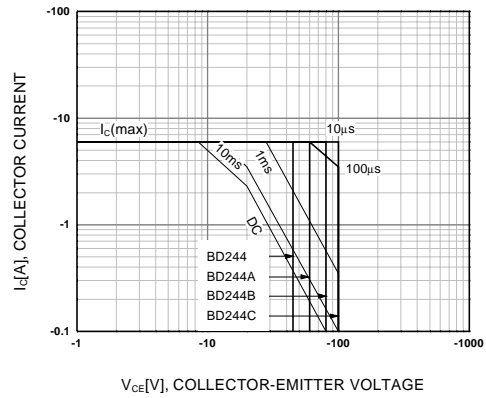


Figure 4. Safe Operating Area

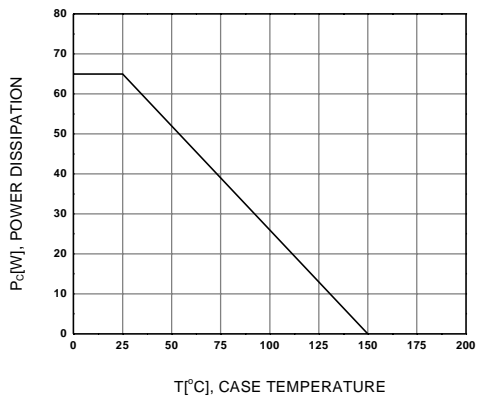


Figure 5. Power Derating

Package Dimensions

BD244/A/B/C

TO-220



Dimensions in Millimeters

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