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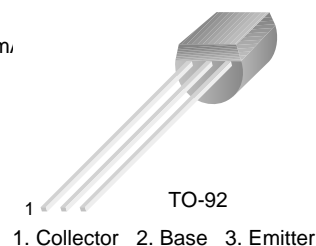


September 2007

BC212

PNP General Purpose Amplifier

- This device is designed for general purpose amplifier application at collector currents to 300m.
- Sourced from process 68.



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

| Symbol | Parameter | Value | Units |
|----------------|--|-----------|------------------|
| V_{CBO} | Collector-Base Voltage | 60 | V |
| V_{CEO} | Collector-Emitter Voltage | 50 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current (DC) | 300 | mA |
| T_J, T_{STG} | Operating and Storage Junction Temperature Range | -55 ~ 150 | $^\circ\text{C}$ |

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Max. | Units |
|-----------------|---|------|---------------------------|
| P_D | Total Device Dissipation | 625 | mW |
| | Derate above 25°C | 5.0 | mW/ $^\circ\text{C}$ |
| $R_{\theta JC}$ | Thermal Resistance, Junction to Case | 83.3 | $^\circ\text{C}/\text{W}$ |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 200 | $^\circ\text{C}/\text{W}$ |

*Device mounted on FR-4 PCB 1.6" X 1.6" X 0.06".

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

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---------------|--------------------------------------|---|------|------|------|-------|
| BV_{CBO} | Collector-Base Voltage | $I_C = 10\mu\text{A}$ | 60 | | | V |
| BV_{CEO} | Collector-Emitter Voltage | $I_C = 2\text{mA}$ | 50 | | | V |
| BV_{EBO} | Emitter-Base Voltage | $I_E = 10\mu\text{A}$ | 5 | | | V |
| I_{EBO} | Emitter Cut-off Current | $V_{EB} = 4\text{V}$ | | | 15 | nA |
| I_{CBO} | Collector Cut-off Current | $V_{CB} = 30\text{V}$ | | | 15 | nA |
| h_{FE} | DC Current Gain | $V_{CE} = 5\text{V}, I_C = 10\mu\text{A}$ | 40 | | | |
| | | $V_{CE} = 5\text{V}, I_C = 2\text{mA}$ | 60 | | | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = 100\text{mA}, I_B = 5\text{mA}$ | | | 0.6 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C = 100\text{mA}, I_B = 5\text{mA}$ | | | 1.4 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $V_{CE} = 5\text{V}, I_C = 2\text{mA}$ | 0.6 | | 0.72 | V |
| C_{ob} | Output Capacitance | $V_{CE} = 10\text{V}, f = 1\text{MHz}$ | | | 6 | pF |




Notes:

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2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. These ratings are based on a maximum junction temperature of 150degrees C.



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