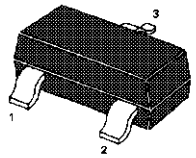
# MMBTA94

PNP Silicon Epitaxial Planar Transistor
for high voltage switching and amplifier applications.

The transistor is subdivided into one group according to its DC current gain. As complementary type the NPN transistor MMBTA44 is recommended.

On special request, these transistors can be manufactured in different pin configurations.




1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a$ = 25 °C)

| | Symbol | Value | Unit |
|---|---|---|---|
| Collector Base Voltage | $-V_{CBO}$ | 400 | V |
| Collector Emitter Voltage | $-V_{CEO}$ | 400 | V |
| Emitter Base Voltage | $-V_{EBO}$ | 6 | V |
| Collector Current | $-I_C$ | 300 | mA |
| Power Dissipation | $P_{tot}$ | 200 | mW |
| Junction Temperature | $T_j$ | 150 | °C |
| Storage Temperature Range | $T_S$ | -55 to +150 | °C |

**Characteristics at $T_{amb}$=25 °C**

| | Symbol | Min. | Max. | Unit |
|---|---|---|---|---|
| DC Current Gain | | | | |
| at $-I_C$=1mA, $-V_{CE}$=10V | $h_{FE}$ | 25 | - | - |
| at $-I_C$=10mA, $-V_{CE}$=10V | $h_{FE}$ | 40 | - | - |
| at $-I_C$=30mA, $-V_{CE}$=10V | $h_{FE}$ | 25 | - | - |
| Emitter Cutoff Current | | | | |
| at $-V_{EB}$=4V | $-I_{EBO}$ | - | 0.1 | µA |
| Collector Cutoff Current | | | | |
| at $-V_{CB}$=300V | $-I_{CBO}$ | - | 0.1 | µA |
| Collector Cutoff Current | | | | |
| at $-V_{CE}$=400V | $-I_{CES}$ | - | 1 | µA |
| Collector Base Breakdown Voltage | | | | |
| at $-I_C$=100µA | $-V_{(BR)CBO}$ | 400 | - | V |
| Collector Emitter Breakdown Voltage | | | | |
| at $-I_C$=1mA | $-V_{(BR)CEO}$ | 400 | - | V |
| Emitter Base Breakdown Voltage | | | | |
| at $-I_E$=10µA | $-V_{(BR)EBO}$ | 6 | - | V |
| Collector Emitter Breakdown Voltage | | | | |
| at $-I_C$=100µA | $-V_{(BR)CES}$ | 400 | - | V |
| Collector Saturation Voltage | | | | |
| at $-I_C$=10mA, $-I_B$=1mA | $-V_{CE(sat)}$ | - | 0.5 | V |
| at $-I_C$=50mA, $-I_B$=5mA | $-V_{CE(sat)}$ | - | 0.75 | V |
| Base Saturation Voltage | | | | |
| at $-I_C$=10mA, $-I_B$=1mA | $-V_{BE(sat)}$ | - | 0.75 | V |
| Collector Output Capacitance | | | | |
| at $-V_{CB}$=20V, f=1MHz | $C_{ob}$ | - | 7 | pF |