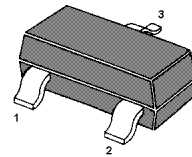


MMBTA94

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.



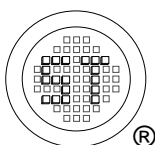
1. Base 2. Emitter 3. Collector
TO-236 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Parameter | 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} | 350 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

Characteristics at $T_a = 25^\circ\text{C}$

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



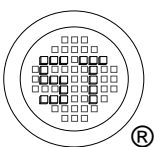
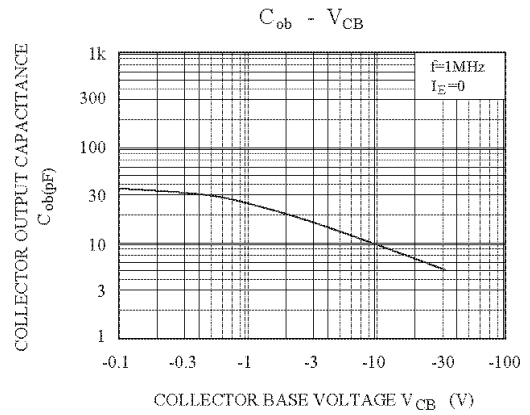
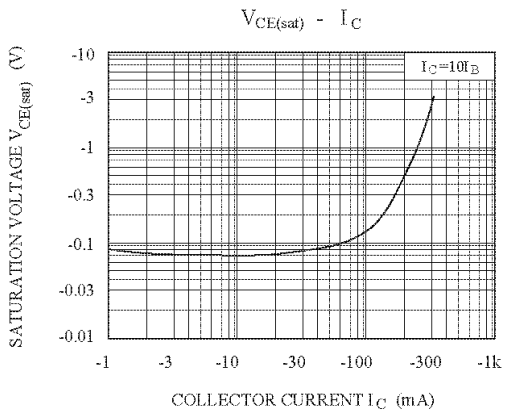
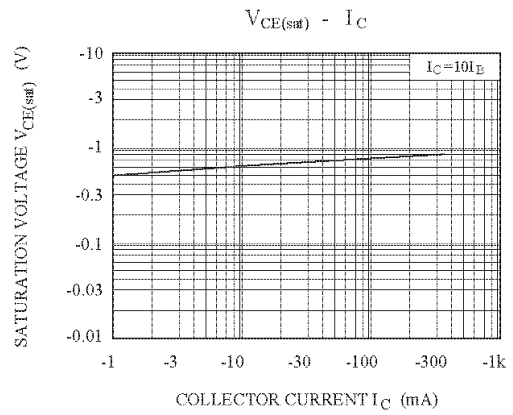
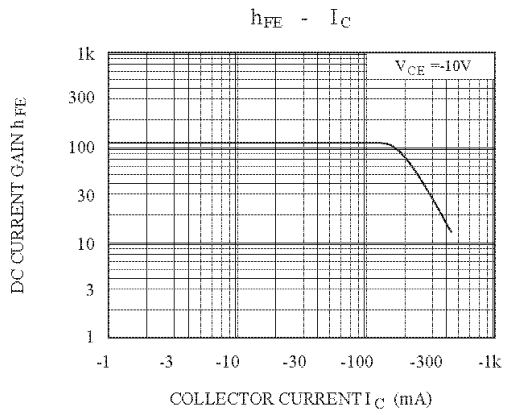
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ISO/TS 16949 : 2009 Certificate No. 180713000
 ISO14001 : 2004 Certificate No. 7116
 ISO 9001 : 2008 Certificate No. 90719410
 BS-OHSAS 18001 : 2007 Certificate No. 7116
 IECQ QC 080000 Certificate No. PRC-18P4-1483-1

Dated: 16/03/2015 Rev: 02

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