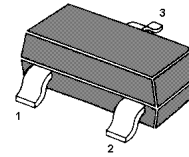


MMBTSA812

PNP Silicon Epitaxial Planar Transistor

for audio frequency, general purpose amplifier.

The transistor is subdivided into four groups O, Y, G and L, according to its DC current gain.



1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

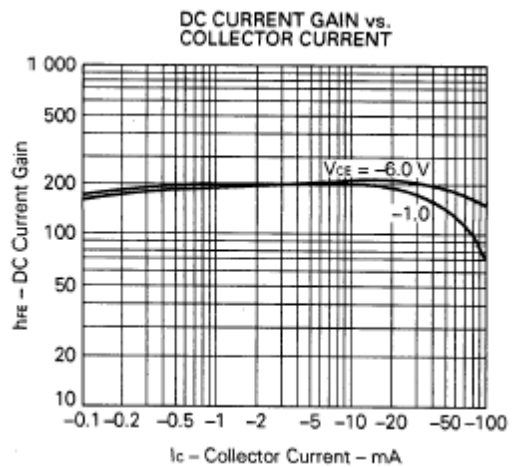
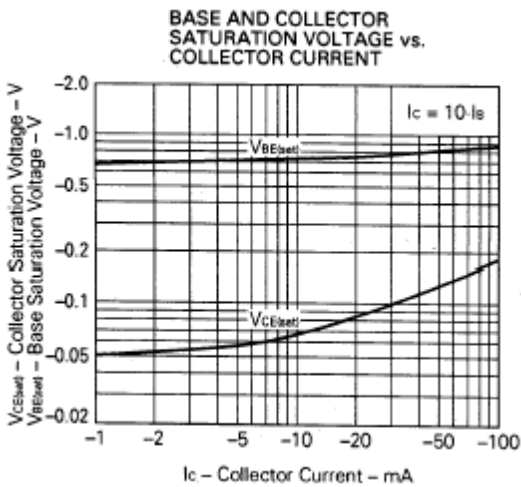
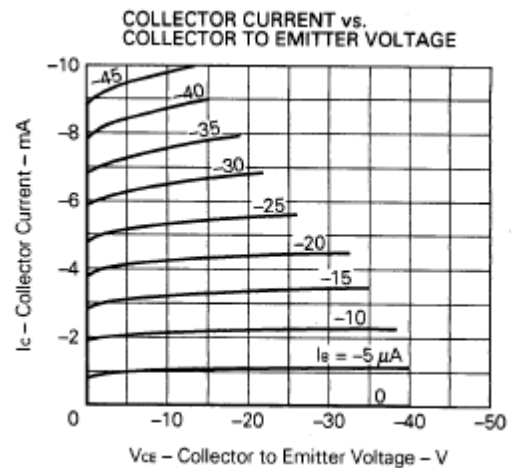
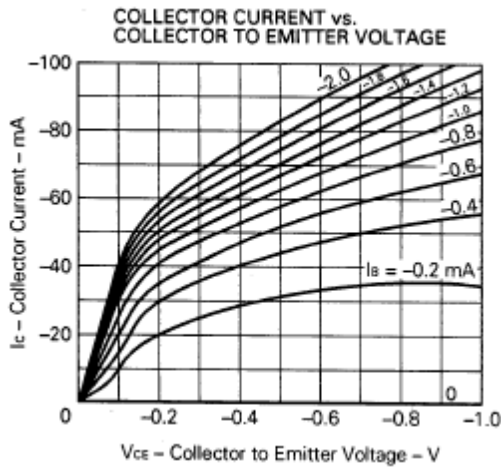
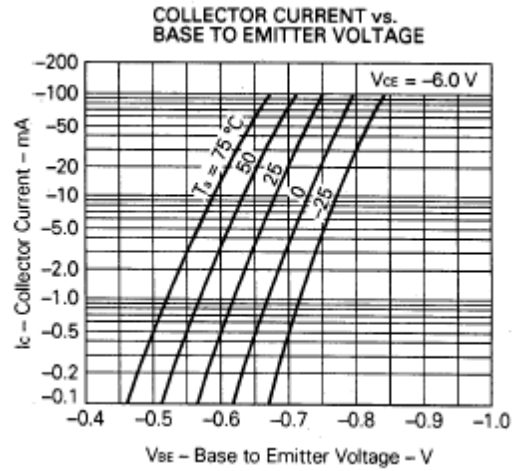
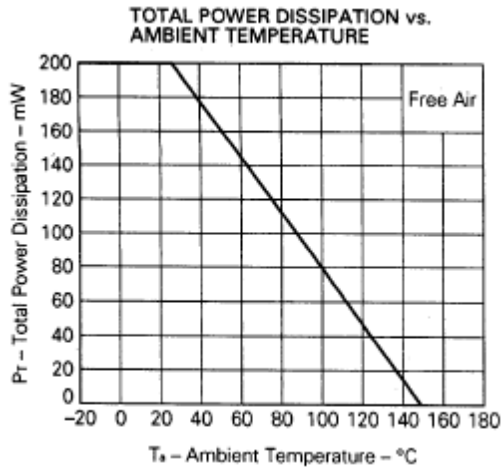
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| | Symbol | Value | Unit |
|---------------------------|------------|-------------|------------------|
| Collector Base Voltage | $-V_{CBO}$ | 60 | V |
| Collector Emitter Voltage | $-V_{CEO}$ | 50 | V |
| Emitter Base Voltage | $-V_{EBO}$ | 5 | V |
| Collector Current | $-I_C$ | 100 | mA |
| Power Dissipation | P_{tot} | 200 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{Stg} | -55 to +150 | $^\circ\text{C}$ |

MMBTSA812

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

| | Symbol | Min. | Typ. | Max. | Unit |
|---|----------------|------|------|------|---------------|
| DC Current Gain at $-V_{CE}=6\text{V}$, $-I_C=1\text{mA}$ | | | | | |
| Current Gain Group O | h_{FE} | 90 | - | 180 | - |
| Y | h_{FE} | 135 | - | 270 | - |
| G | h_{FE} | 200 | - | 400 | - |
| L | h_{FE} | 300 | - | 600 | - |
| Collector Cutoff Current at $-V_{CB}=60\text{V}$ | $-I_{CBO}$ | - | - | 0.1 | μA |
| Emitter Cutoff Current at $-V_{EB}=5\text{V}$ | $-I_{EBO}$ | - | - | 0.1 | μA |
| Collector Saturation Voltage at $-I_C=100\text{mA}$, $-I_B=10\text{mA}$ | $-V_{CE(sat)}$ | - | - | 0.3 | V |
| Base Emitter Voltage at $-V_{CE}=6\text{V}$, $-I_C=1\text{mA}$ | $-V_{BE}$ | 0.58 | - | 0.68 | V |
| Gain Bandwidth Product at $-V_{CE}=6\text{V}$, $-I_C=10\text{mA}$ | f_T | - | 180 | - | MHz |
| Output Capacitance at $-V_{CB}=10\text{V}$, $f=1\text{MHz}$ | C_{OB} | - | 4.5 | - | pF |



MMBTS812

