



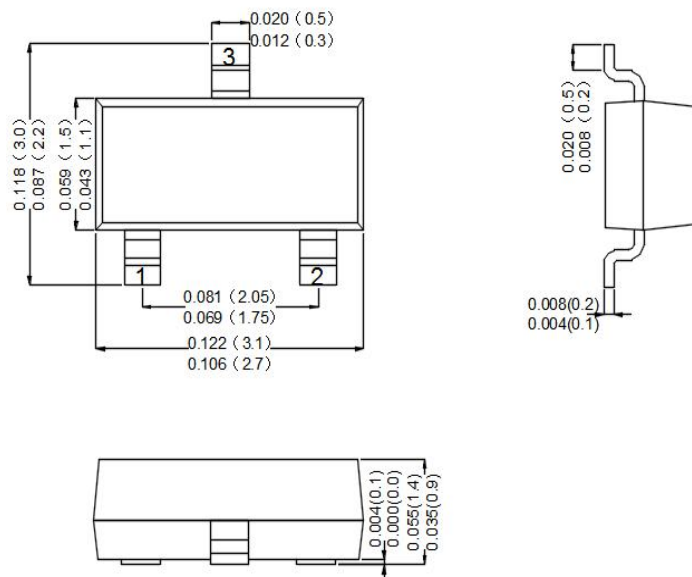
Features

- For general purpose AF amplifier

SOT-23

Mechanical Data

- Case: Molded Plastic, SOT-23
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking: marked on body
- Mounting Position : Any.
- Equivalent Circuit:



Dimensions in inches and (millimeters)

Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

| Parameter | Symbol | Value | Unit |
|---------------------------|------------|---------------|------|
| Collector Base Voltage | $-V_{CBO}$ | 20 | V |
| Collector Emitter Voltage | $-V_{CEO}$ | 15 | V |
| Emitter Base Voltage | $-V_{EBO}$ | 5 | V |
| Collector Current | $-I_C$ | 700 | mA |
| Collector Current (Pulse) | $-I_{CP}$ | 1.5 | A |
| Power Dissipation | P_{tot} | 200 | mW |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature Range | T_s | - 55 to + 150 | °C |



MMBT815

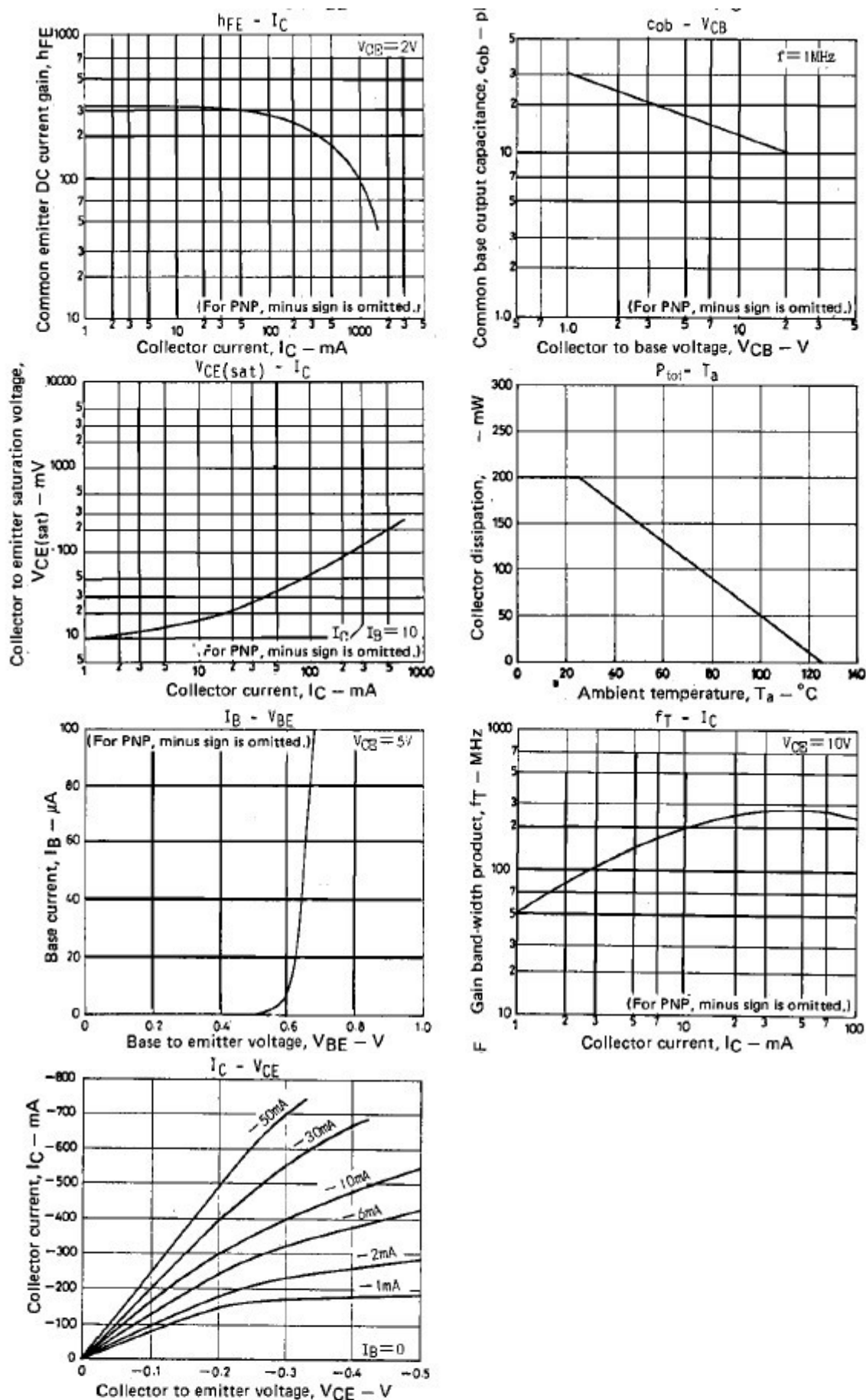
PNP Silicon Epitaxial Planar Transistor

Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|--|----------------------|-----------|--------|----------|--------|
| DC Current Gain at $-V_{CE} = 2\text{ V}$, $-I_C = 50\text{ mA}$ at $-V_{CE} = 2\text{ V}$, $-I_C = 500\text{ mA}$ | h_{FE} h_{FE} | 200 80 | - - | 400 - | - - |
| Collector Cutoff Current at $-V_{CB} = 15\text{ V}$ | $-I_{CBO}$ | - | - | 100 | nA |
| Emitter Cutoff Current at $-V_{EB} = 4\text{ V}$ | $-I_{EBO}$ | - | - | 100 | nA |
| Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$ | $-V_{(BR)CBO}$ | 20 | - | - | V |
| Collector Emitter Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$ | $-V_{(BR)CEO}$ | 15 | - | - | V |
| Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$ | $-V_{(BR)EBO}$ | 5 | - | - | V |
| Collector Emitter Saturation Voltage at $-I_C = 5\text{ mA}$, $-I_B = 0.5\text{ mA}$ | $-V_{CE(sat)}$ | - | - | 35 | mV |
| Collector Emitter Saturation Voltage at $-I_C = 100\text{ mA}$, $-I_B = 10\text{ mA}$ | $-V_{CE(sat)}$ | - | - | 120 | mV |
| Transition Frequency at $-V_{CE} = 10\text{ V}$, $-I_C = 50\text{ mA}$ | f_T | - | 250 | - | MHz |
| Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$ | C_{ob} | - | 13 | - | pF |



Rating And Characteristic Curves





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