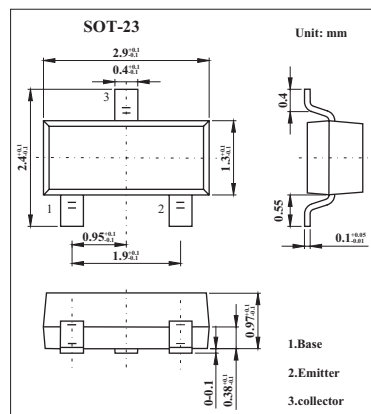
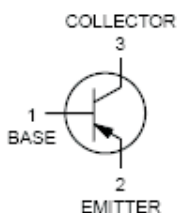


MMBTA20

■ Features

- General Purpose Amplifier.



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---|------------------|-------------|-------------|
| Collector-emitter voltage | V _{CEO} | 40 | V |
| Emitter-base voltage | V _{EBO} | 4 | V |
| Collector current | I _C | 100 | mA |
| Total Device Dissipation FR-5 Board (* 1) @T _A = 25°C Derate above 25°C | P _D | 225 1.8 | mW mW/°C |
| Thermal Resistance, Junction-to-Ambient | R _{θJA} | 556 | °C/W |
| Total Device Dissipation Alumina Substrate, (* 2) @T _A = 25°C Derate above 25°C | P _D | 300 2.4 | mW mW/°C |
| Thermal Resistance, Junction-to-Ambient | R _{θJA} | 417 | °C/W |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |

* 1. FR-5 = 1.0 X 0.75 X 0.062 in.

* 2. Alumina = 0.4 X 0.3 X 0.024 in. 99.5% alumina.

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|--|-----|-----|------|------|
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C = 1.0 mA, I _B = 0 | 40 | | | V |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E = 10 μA, I _C = 0 | 4.0 | | | V |
| Collector cutoff current | I _{CBO} | V _{CB} = 30 V, I _E = 0 | | | 100 | nA |
| DC current gain | H _{FE} | I _C = 5.0 mA, V _{CE} = 10 V | 40 | | 400 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C = 10 mA, I _B = 1.0 mA | | | 0.25 | V |
| Current-gain-bandwidth product | f _r | I _C = 5.0 mA, V _{CE} = 10 V, f = 100 MHz | 125 | | | MHz |
| Output capacitance | C _{obo} | V _{CB} = 5.0 V, I _E = 0, f = 1.0 MHz | | | 4.0 | pF |

■ Marking

| | |
|---------|----|
| Marking | 1C |
|---------|----|