

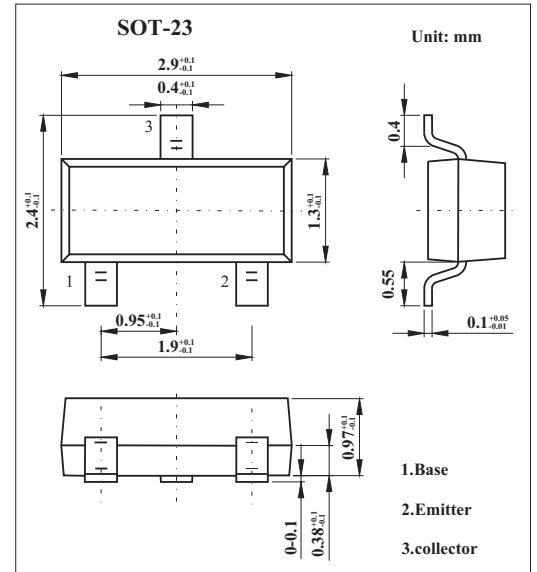
SOT-23 Plastic-Encapsulate Transistors

Features

- For general AF applications.
- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.
- NPN Silicon AF Transistors

MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Parameter | Symbol | Rating | Unit |
|---------------------------|------------------|-------------|------|
| Collector-base voltage | V _{CB0} | 50 | V |
| Collector-emitter voltage | V _{CEO} | 45 | V |
| Emitter-base voltage | V _{EB0} | 5 | V |
| Collector current (DC) | I _C | 800 | mA |
| power dissipation | P _D | 310 | mW |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{stg} | -65 to +150 | °C |

PACKAGE INFORMATION

| Device | Package | Shipping |
|--------|---------|----------------|
| BC817 | SOT-23 | 3000/Tape&Reel |

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--|----------------------|---|-----|-----|-----|------|
| Collector-to-base breakdown voltage | V _{CB0} | I _C = 10 μA, V _{BE} = 0 | 50 | | | V |
| Collector-to-emitter breakdown voltage | V _{CEO} | I _C = 10 mA, I _B = 0 | 45 | | | V |
| Emitter-to-base breakdown voltage | V _{EB0} | I _E = 10 μA, I _C = 0 | 5 | | | V |
| Collector cutoff current | I _{CES} | V _{CB} = 25 V, V _{BE} = 0 | | | 100 | nA |
| Emitter cutoff current | I _{EBO} | V _{EB} = 4 V, I _C = 0 | | | 100 | nA |
| DC current gain * | h _{FE} | I _C = 100 mA, V _{CE} = 1 V | 100 | | 630 | |
| | | I _C = 300 mA, V _{CE} = 1 V | 60 | | | |
| Collector saturation voltage * | V _{CE(sat)} | I _C = 500 mA, I _B = 50 mA | | | 0.7 | V |
| Base emitter on voltage | V _{BE(on)} | V _{CE} = 1V, I _C = 300mA | | | 1.2 | V |
| Output Capacitance | C _{ob} | V _{CB} = 10V, f = 1MHz | | | 12 | pF |
| Transition frequency | f _T | I _C = 10 mA, V _{CE} = 5 V, f = 50 MHz | | 100 | | MHz |

* Pulsed: PW ≤ 350 μs, duty cycle ≤ 2%

Marking

| NO. | BC817-16 | BC817-25 | BC817-40 |
|-----------------|----------|----------|----------|
| Marking | 8FA | 8FB | 8FC |
| h _{FE} | 100~250 | 160~400 | 250~630 |