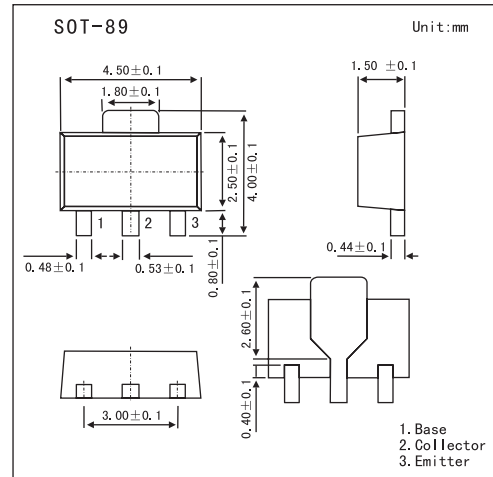


2SA1734

■ Features

- Low saturation voltage: $V_{CE(sat)} = -0.5\text{ V (max)}$ ($I_c = -700\text{ mA}$).
- High speed switching time: $t_{stg} = 0.2\mu\text{s (typ.)}$.
- Small flat package.
- $P_C = 1.0\text{ to }2.0\text{ W}$ (mounted on ceramic substrate).



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

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|------------------|
| Collector-base voltage | V_{CBO} | -40 | V |
| Collector-emitter voltage | V_{CEO} | -30 | V |
| Emitter-base voltage | V_{EBO} | -6 | V |
| Collector current | I_c | -2 | A |
| Base current | I_B | -1.2 | A |
| Collector power dissipation | P_C | 500 | mW |
| | P_C^* | 1000 | |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

* Mounted on ceramic substrate (250 mm² X 0.8 t)

2SA1734

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit | |
|--------------------------------------|-----------------------|--|-----|-----|------|------|----|
| Collector cut-off current | ICBO | V _{CB} = -40 V, I _E = 0 | | | -0.1 | μA | |
| Emitter cut-off current | IEBO | V _{EB} = -6 V, I _C = 0 | | | -0.1 | μA | |
| Collector-emitter breakdown voltage | V _{(BR)CEO} | I _C = -10 mA, I _B = 0 | -50 | | | V | |
| DC current gain | h _{FE} | V _{CE} = -2 V, I _C = -100 mA | 120 | | 400 | | |
| | | V _{CE} = -2 V, I _C = -1.0A | 40 | | | | |
| Collector-emitter saturation voltage | V _{CE (sat)} | I _C = -700 mA, I _B = -35 mA | | | -0.5 | V | |
| Base-emitter saturation voltage | V _{BE (sat)} | I _C = -700 mA, I _B = -35 mA | | | -1.2 | V | |
| Transition frequency | f _T | V _{CE} = -2 V, I _C = -100 mA | | 100 | | MHz | |
| Collector output capacitance | C _{ob} | V _{CB} = -10 V, I _E = 0, f = 1 MHz | | 16 | | pF | |
| Turn-on time | t _{on} | <p> $-I_{B1} = I_{B2} = 35 \text{ mA}$, DUTY CYCLE ≤ 1% </p> | | 0.1 | | μs | |
| Storage time | t _{stg} | | | | 0.2 | | μs |
| Fall time | t _f | | | | 0.1 | | μs |

■ Marking

| | |
|---------|----|
| Marking | LB |
|---------|----|