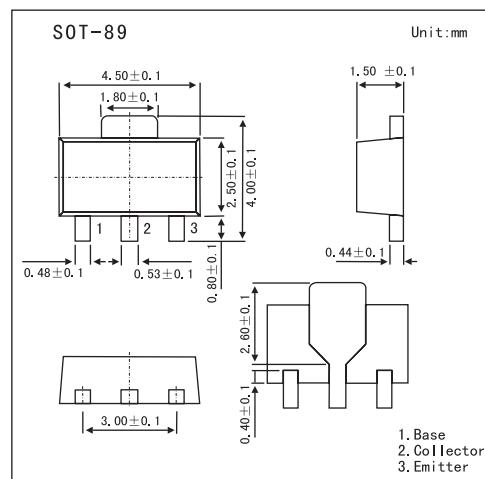


Power Transistor

2SB1427

■ Features

- Low saturation voltage,
typically $V_{CE(sat)} = -0.5V$ at $I_C/I_B = -1A/-50mA$.
- Excellent DC current gain characteristics.



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

| Parameter | Symbol | Rating | Unit |
|-----------------------------|------------|-------------|------------|
| Collector-base voltage | V_{CBO} | -20 | V |
| Collector-emitter voltage | V_{CEO} | -20 | V |
| Emitter-base voltage | V_{EBO} | -6 | V |
| Collector current | I_C | -2 | A |
| Collector current(Pulse) | I_{CP}^* | -3 | A |
| Collector power dissipation | P_C | 0.5 | W |
| Junction temperature | T_j | 150 | $^\circ C$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ C$ |

* Single pulse, $P_w=10ms$

■ Electrical Characteristics $T_a = 25^\circ C$

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|---------------|----------------------------------|-----|-----|------|---------|
| Collector-base breakdown voltage | BV_{CBO} | $I_C=-50\mu A$ | -20 | | | V |
| Collector-emitter breakdown voltage | BV_{CEO} | $I_C=-1mA$ | -20 | | | V |
| Emitter-base breakdown voltage | BV_{EBO} | $I_E=-50\mu A$ | -6 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB}=-16V$ | | | -0.5 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB}=-5V$ | | | -0.5 | μA |
| DC current transfer ratio | $V_{CE(sat)}$ | $I_C=-1A, I_B=-500mA$ | | | -0.5 | V |
| Collector-emitter saturation voltage | h_{FE} | $V_{CE}=-6V, I_C=-0.5A$ | 390 | | 820 | |
| Transition frequency | C_{ob} | $V_{CE}=-10V, I_E=10mA, f=30MHz$ | | 90 | | MHz |
| Output capacitance | f_T | $V_{CB}=-10V, I_E=0A, f=1MHz$ | | 30 | | pF |

■ Marking

| | |
|---------|-----|
| Marking | BJE |
|---------|-----|