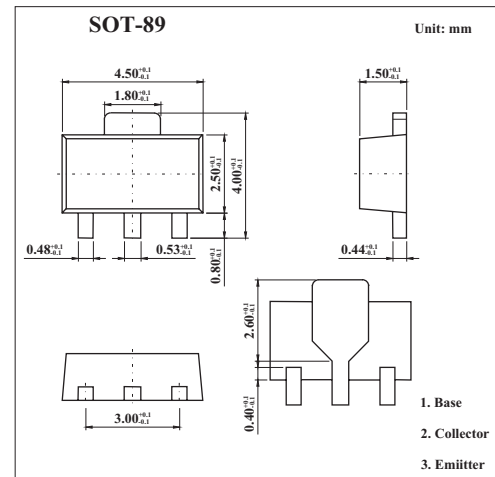


## Power Transistor

## 2SA1797

## ■ Features

- Low saturation voltage.  $V_{CE(sat)} = -0.35V(\text{Max.})$  at  $I_C / I_B = -1A / -50mA$ .
- Excellent DC current gain characteristics.
- Complements the 2SA1797 and 2SC4672.

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

| Parameter                   | Symbol    | Rating      | Unit             |
|-----------------------------|-----------|-------------|------------------|
| Collector-emitter Voltage   | $V_{CEO}$ | -50         | V                |
| Collector-base Voltage      | $V_{CBO}$ | -50         | V                |
| Emitter-base Voltage        | $V_{EBO}$ | -6          | V                |
| Collector current           | $I_C$     | -3          | A                |
| Collector power dissipation | $P_C$     | 0.5         | W                |
| Junction temperature        | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature         | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

| Parameter                            | Symbol        | Testconditions                         | Min | Typ   | Max   | Unit    |
|--------------------------------------|---------------|--|-----|-------|-------|---------|
| Collector-emitter breakdown voltage  | $BV_{CEO}$    | $I_C = -1mA$                           | -50 |       |       | V       |
| Collector-base breakdown voltage     | $BV_{CBO}$    | $I_C = -50\mu A$                       | -50 |       |       | V       |
| Emitter-base breakdown voltage       | $BV_{EBO}$    | $I_E = -50\mu A$                       | -6  |       |       | V       |
| Collector cutoff current             | $I_{CBO}$     | $V_{CB} = -50V$                        |     |       | -0.1  | $\mu A$ |
| Emitter cutoff current               | $I_{EBO}$     | $V_{EB} = -5V$                         |     |       | -0.1  | $\mu A$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = -1A, I_B = -50mA$               |     | -0.15 | -0.35 | V       |
| DC current transfer ratio            | $h_{FE}$      | $V_{CE} = -2V, I_C = -0.5A$            | 82  |       | 270   |         |
| Transition frequency                 | $f_T$         | $V_{CE} = -2V, I_E = 0.5A, f = 100MHz$ |     | 200   |       | MHz     |
| Output Capacitance                   | $C_{ob}$      | $V_{CB} = -10V, I_E = 0A, f = 1MHz$    |     | 36    |       | pF      |

## ■ hFE Classification

| Marking | AG     |         |
|---------|--------|---------|
|         | P      | Q       |
| hFE     | 82~180 | 120~270 |