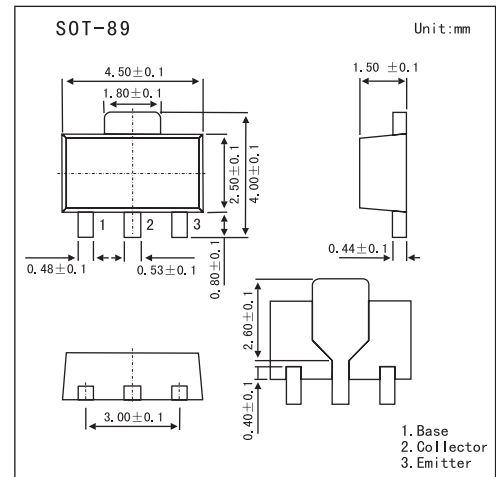


## Silicon PNP Epitaxial Planar Type

## 2SB1073

## ■ Features

- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Large peak collector current  $I_{CP}$
- Mini Power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

| Parameter                   | Symbol    | Rating      | Unit             |
|-----------------------------|-----------|-------------|------------------|
| Collector-base voltage      | $V_{CBO}$ | -30         | V                |
| Collector-emitter voltage   | $V_{CEO}$ | -20         | V                |
| Emitter-base voltage        | $V_{EBO}$ | -7          | V                |
| Peak collector current      | $I_{CP}$  | -4          | A                |
| Collector current           | $I_C$     | -7          | mA               |
| Collector power dissipation | $P_C$     | 1           | mW               |
| 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-base voltage               | $V_{CBO}$     | $I_C = -10 \mu\text{A}, I_E = 0$                                  | -30 |      |      | V             |
| Collector-emitter voltage            | $V_{CEO}$     | $I_C = -1 \text{ mA}, I_B = 0$                                    | -20 |      |      | V             |
| Emitter-base voltage                 | $V_{EBO}$     | $I_E = -10 \mu\text{A}, I_C = 0$                                  | -7  |      |      | V             |
| Collector-base cutoff current        | $I_{CBO}$     | $V_{CB} = -30 \text{ V}, I_E = 0$                                 |     |      | -0.1 | $\mu\text{A}$ |
| Emitter-base cutoff current          | $I_{EBO}$     | $V_{EB} = -7 \text{ V}, I_C = 0$                                  |     |      | -0.1 | $\mu\text{A}$ |
| Forward current transfer ratio       | $h_{FE}$      | $V_{CE} = -2 \text{ V}, I_C = -2 \text{ A}$                       | 120 |      | 315  |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -3 \text{ A}, I_B = -0.1 \text{ A}$                        |     | -0.6 | -1.0 | V             |
| Transition frequency                 | $f_T$         | $V_{CB} = -6 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$ |     | 120  |      | MHz           |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = -20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$              |     | 4    |      | pF            |

■  $h_{FE}$  Classification

| Marking  | IP      | IQ      |
|----------|---------|---------|
| $h_{FE}$ | 120~205 | 180~315 |