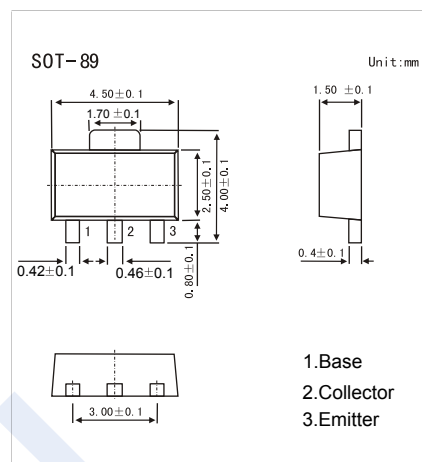


## PNP Transistors

## 2SB1073-HF

## ■ Features

- Low collector to emitter saturation voltage  $V_{CE(sat)}$ .
- Large peak collector current  $I_{CP}$ .
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish

■ 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        |                  |
| Emitter - Base Voltage         | $V_{EBO}$ | -7         |                  |
| Collector Current - Continuous | $I_C$     | -4         | A                |
| Collector current -Pulse       | $I_{CP}$  | -7         |                  |
| Collector Power Dissipation    | $P_C$     | 1          | W                |
| Junction Temperature           | $T_J$     | 150        | $^\circ\text{C}$ |
| Storage Temperature range      | $T_{stg}$ | -55 to 150 |                  |

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

| Parameter                            | Symbol        | Test Conditions                                                   | Min | Typ  | Max  | Unit          |
|--------------------------------------|---------------|-------------------------------------------------------------------|-----|------|------|---------------|
| Collector- base breakdown voltage    | $V_{CBO}$     | $I_C = -100 \mu\text{A}$ , $I_E = 0$                              | -30 |      |      | V             |
| Collector- emitter breakdown voltage | $V_{CEO}$     | $I_C = -1 \text{ mA}$ , $I_B = 0$                                 | -20 |      |      |               |
| Emitter - base breakdown voltage     | $V_{EBO}$     | $I_E = -100 \mu\text{A}$ , $I_C = 0$                              | -7  |      |      |               |
| Collector-base cut-off current       | $I_{CBO}$     | $V_{CB} = -30\text{V}$ , $I_E = 0$                                |     |      | -0.1 | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -7\text{V}$ , $I_C = 0$                                 |     |      | -0.1 |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -3 \text{ A}$ , $I_B = -100\text{mA}$                      |     | -0.6 | -1   | V             |
| Base - emitter saturation voltage    | $V_{BE(sat)}$ | $I_C = -3 \text{ A}$ , $I_B = -100\text{mA}$                      |     |      | -1.2 |               |
| DC current gain                      | $h_{FE}$      | $V_{CE} = -2\text{V}$ , $I_C = -2 \text{ A}$                      | 120 |      | 315  |               |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = -20\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$            |     | 40   |      | pF            |
| Transition frequency                 | $f_T$         | $V_{CE} = -6\text{V}$ , $I_E = 50\text{mA}$ , $f = 200\text{MHz}$ |     | 120  |      | MHz           |

■ Classification of  $h_{FE}$ 

| Type    | 2SB1073-Q-HF | 2SB1073-R-HF |
|---------|--------------|--------------|
| Range   | 120-205      | 180-315      |
| Marking | $IQ_F$       | $IR_F$       |

## PNP Transistors

## 2SB1073-HF

## ■ Typical Characteristics

