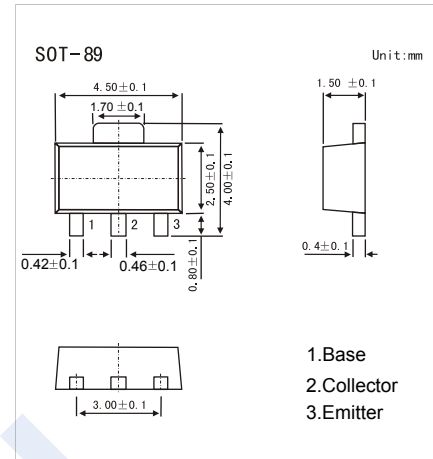
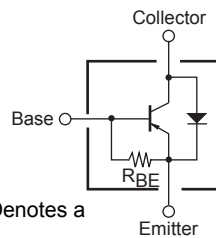


## PNP Transistors

### 2SB1324-HF

#### ■ Features

- Contains diode between collector and emitter.
- Low saturation voltage.
- Large current capacity.
- Complementary to 2SD1998-HF
- 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       | $V_{CB0}$ | -40        | V                |
| Collector - Emitter Voltage    | $V_{CE0}$ | -30        |                  |
| Emitter - Base Voltage         | $V_{EB0}$ | -6         |                  |
| Collector Current - Continuous | $I_C$     | -3         | A                |
| Collector Current - Pulse      | $I_{CP}$  | -5         |                  |
| Collector Power Dissipation    | $P_C$     | 1.5        | 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    | $V_{CB0}$     | $I_C = -100 \mu\text{A}$ , $I_E = 0$                       | -40 |       |      | V                |
| Collector- emitter breakdown voltage | $V_{CE0}$     | $I_C = -10 \text{ mA}$ , $R_{BE} = \infty$                 | -30 |       |      |                  |
| Emitter - base breakdown voltage     | $V_{EB0}$     | $I_E = -100 \mu\text{A}$ , $I_C = 0$                       | -6  |       |      |                  |
| Collector-base cut-off current       | $I_{CBO}$     | $V_{CB} = -35 \text{ V}$ , $I_E = 0$                       |     |       | -1   | $\mu\text{A}$    |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5 \text{ V}$ , $I_C = 0$                        |     |       | -0.1 |                  |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -2 \text{ A}$ , $I_B = -100 \text{ mA}$             |     | -0.25 | -0.6 | V                |
| Base - emitter saturation voltage    | $V_{BE(sat)}$ | $I_C = -2 \text{ A}$ , $I_B = -100 \text{ mA}$             |     |       | -1.5 |                  |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE} = -2 \text{ V}$ , $I_C = -500 \text{ mA}$          | 70  |       |      |                  |
|                                      | $h_{FE(2)}$   | $V_{CE} = -2 \text{ V}$ , $I_C = -2 \text{ A}$             | 50  |       |      |                  |
| Base-to-Emitter Resistance           | $R_{BE}$      |  |     | 0.8   |      | $\text{k}\Omega$ |
| Diode Forward Voltage                | $V_F$         | $I_F = 500 \text{ mA}$                                     |     |       | 1.5  | V                |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = -10 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$ |     | 55    |      | $\text{pF}$      |
| Transition frequency                 | $f_T$         | $V_{CE} = -2 \text{ V}$ , $I_C = -500 \text{ mA}$          |     | 100   |      | MHz              |

#### ■ Marking

|         |      |
|---------|------|
| Marking | BL F |
|---------|------|

### PNP Transistors

### 2SB1324-HF

■ Typical Characteristics

