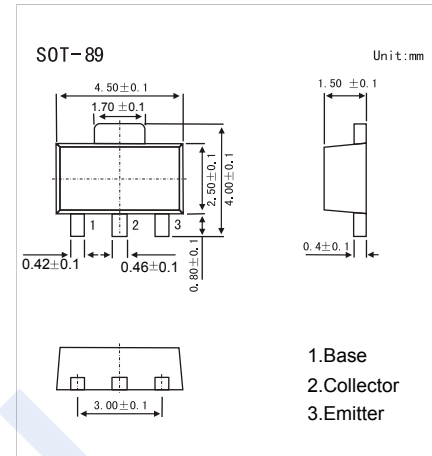


## PNP Transistors

### 2SB1025

#### ■ Features

- Low frequency power amplifier
- Complementary to 2SD1418



#### ■ Absolute Maximum Ratings Ta = 25°C

| Parameter                         | Symbol           | Rating     | Unit |
|-----------------------------------|------------------|------------|------|
| Collector - Base Voltage          | V <sub>CB0</sub> | -120       | V    |
| Collector - Emitter Voltage       | V <sub>CEO</sub> | -80        |      |
| Emitter - Base Voltage            | V <sub>EBO</sub> | -5         |      |
| Collector Current - Continuous    | I <sub>C</sub>   | -1         | A    |
| Collector current -Pulse (Note.1) | I <sub>CP</sub>  | -2         |      |
| Collector Power Dissipation       | P <sub>C</sub>   | 1          | W    |
| Junction Temperature              | T <sub>J</sub>   | 150        | °C   |
| Storage Temperature range         | T <sub>stg</sub> | -55 to 150 |      |

Note.1: PW ≤ 10ms,Duty cycle ≤ 20%

#### ■ Electrical Characteristics Ta = 25°C

| Parameter                            | Symbol               | Test Conditions                                      | Min  | Typ | Max  | Unit |
|--------------------------------------|----------------------|--|------|-----|------|------|
| Collector- base breakdown voltage    | V <sub>CB0</sub>     | I <sub>C</sub> = -100 μA, I <sub>E</sub> = 0         | -120 |     |      | V    |
| Collector- emitter breakdown voltage | V <sub>CEO</sub>     | I <sub>C</sub> = -1 mA, R <sub>BE</sub> = ∞          | -80  |     |      |      |
| Emitter - base breakdown voltage     | V <sub>EBO</sub>     | I <sub>E</sub> = -100 μA, I <sub>C</sub> = 0         | -5   |     |      |      |
| Collector-base cut-off current       | I <sub>CB0</sub>     | V <sub>CB</sub> = -100V, I <sub>E</sub> = 0          |      |     | -10  | μA   |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> = -5V, I <sub>C</sub> = 0            |      |     | -0.1 |      |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA      |      |     | -1   | V    |
| Base - emitter saturation voltage    | V <sub>BE(sat)</sub> | I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA      |      |     | -1.2 |      |
| Base - emitter voltage               | V <sub>BE</sub>      | V <sub>CE</sub> = -5V, I <sub>C</sub> = -150 mA      |      |     | -0.9 |      |
| DC current gain                      | h <sub>FE</sub>      | V <sub>CE</sub> = -5V, I <sub>C</sub> = -150 mA      | 60   |     | 320  |      |
|                                      |                      | V <sub>CE</sub> = -5V, I <sub>C</sub> = -500 mA      | 30   |     |      |      |
| Collector output capacitance         | C <sub>ob</sub>      | V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1MHz |      | 20  |      | pF   |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> = -5V, I <sub>C</sub> = -150mA       |      | 140 |      | MHz  |

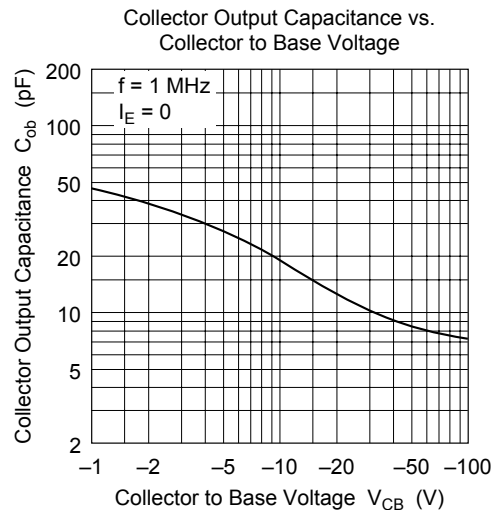
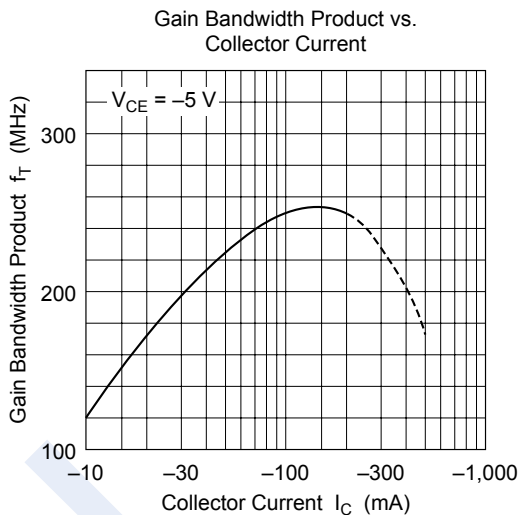
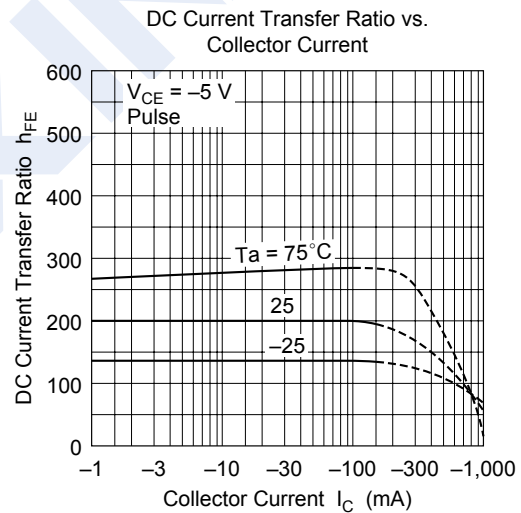
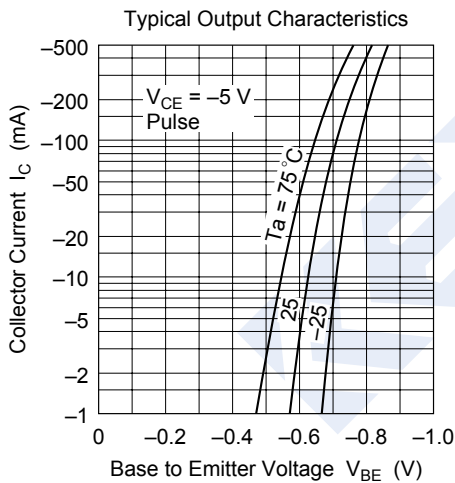
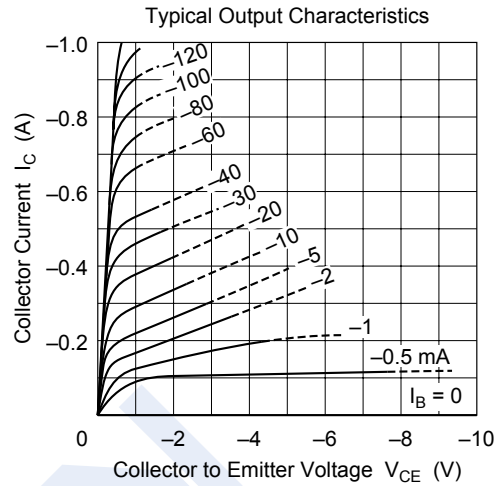
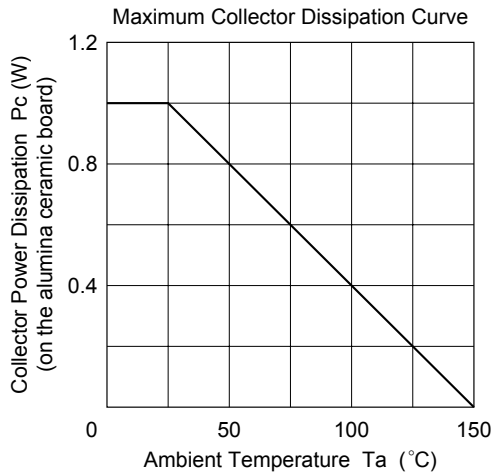
#### ■ Classification of h<sub>fe</sub>(1)

| Type    | 2SB1025-H | 2SB1025-J | 2SB1025-K |
|---------|-----------|-----------|-----------|
| Range   | 60-120    | 100-200   | 160-320   |
| Marking | DH        | DJ        | DK        |

# PNP Transistors

## 2SB1025

### ■ Typical Characteristics



## PNP Transistors

### 2SB1025

#### ■ Typical Characteristics

