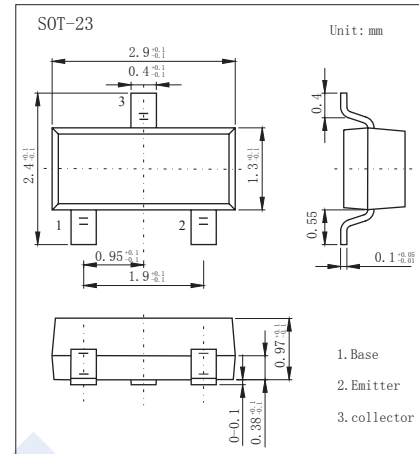


## PNP Transistors

### KST9012

#### ■ Features

- Excellent hFE linearity
- Collector Current : $I_c = -0.5A$



#### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

| Parameter                       | Symbol    | Rating     | Unit       |
|---------------------------------|-----------|------------|------------|
| Collector - Base Voltage        | $V_{CB0}$ | -40        | V          |
| Collector - Emitter Voltage     | $V_{CEO}$ | -25        | V          |
| Emitter - Base Voltage          | $V_{EBO}$ | -5         | V          |
| Collector Current to Continuous | $I_c$     | -500       | mA         |
| Collector Power Dissipation     | $P_C$     | 300        | mW         |
| Junction Temperature            | $T_j$     | 150        | $^\circ C$ |
| Storage Temperature             | $T_{stg}$ | -55 to 150 | $^\circ C$ |

#### ■ Electrical Characteristics $T_a = 25^\circ C$

| Parameter                              | Symbol        | Testconditions                         | Min | Typ | Max  | Unit    |
|--|---------------|--|-----|-----|------|---------|
| Collector - base breakdown voltage     | $V_{CB0}$     | $I_c = -100\mu A, I_E = 0$             | -40 |     |      | V       |
| Collector - emitter breakdown voltage  | $V_{CEO}$     | $I_c = -1 mA, I_B = 0$                 | -25 |     |      | V       |
| Emitter - base breakdown voltage       | $V_{EBO}$     | $I_E = -100\mu A, I_C = 0$             | -5  |     |      | V       |
| Collector cut - off current            | $I_{CBO}$     | $V_{CB} = -40V, I_E = 0$               |     |     | -0.1 | $\mu A$ |
| Collector cut - off current            | $I_{CEO}$     | $V_{CB} = -20V, I_E = 0$               |     |     | -1   | $\mu A$ |
| Emitter cut - off current              | $I_{EBO}$     | $V_{EB} = -5V, I_C = 0$                |     |     | -0.1 | $\mu A$ |
| DC current gain                        | $h_{FE}$      | $V_{CE} = -1V, I_c = -50mA$            | 120 |     | 400  |         |
| Collector - emitter saturation voltage | $V_{CE(sat)}$ | $I_c = -500 mA, I_B = -50mA$           |     |     | -0.6 | V       |
| Base - emitter voltage                 | $V_{BE(sat)}$ | $I_c = -500 mA, I_B = -50mA$           |     |     | -1.2 | V       |
| Collector output capacitance           | $C_{ob}$      | $V_{CB} = -10V, I_E = 0, f = 1MHz$     |     |     | 5    | pF      |
| Transition frequency                   | $f_T$         | $V_{CE} = -6V, I_c = -20mA, f = 30MHz$ | 150 |     |      | MHz     |

#### ■ Classification of $h_{fe}(1)$

| Type    | KST9012 | KST9012-L | KST9012-H | KST9012-J |
|---------|---------|-----------|-----------|-----------|
| Range   | 200-350 | 120-200   | 144-202   | 300-400   |
| Marking | 2T1     |           |           |           |

# KST9012

## Typical Characteristics

