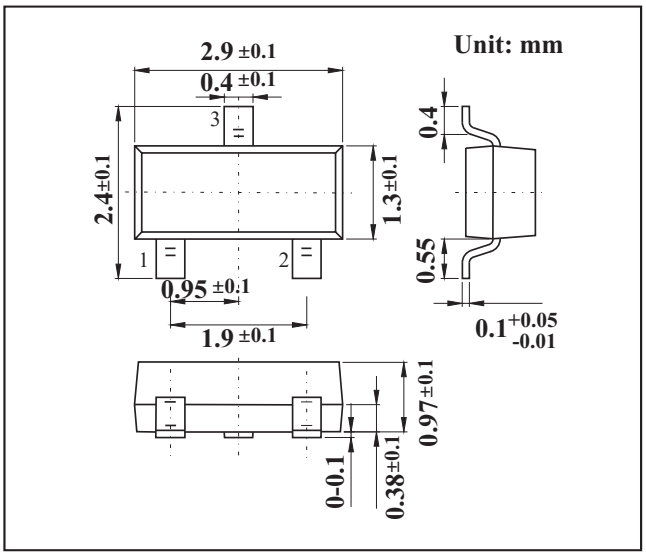
## SOT-23 Plastic-Encapsulate Transistors

### Features

- High Voltage Transistors
- NPN Silicon
- Power Dissipation of 350mW
- High Stability and High Reliability

### MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any




### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Parameters | Symbol | Value | Unit |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | 400 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | 400 | V |
| Emitter -Base Voltage | $V_{EBO}$ | 6 | V |
| Collector Current-Continuous | $I_C$ | 200 | mA |
| Collector Power Dissipation | $P_C$ | 350 | mW |
| Junction Temperature | $T_j$ | 150 | ℃ |
| Storage Temperature | Tstg | -55-+150 | ℃ |
| Thermal resistance From junction to ambient | $R_{\theta JA}$ | 357 | ℃/W |

### Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

| Parameter | Symbols | Test Condition | Limits | | Unit |
|---|---|---|---|---|---|
| | | | Min | Max | |
| Collector-base breakdown voltage | **$V_{(BR)CBO}$** | $I_C$=100uA, $I_E$=0 | 400 | | V |
| Collector-emitter breakdown voltage | **$V_{(BR)CEO}$** | $I_C$=1mA, $I_B$=0 | 400 | | V |
| Emitter-base breakdown voltage | **$V_{(BR)EBO}$** | $I_E$=10uA, $I_C$=0 | 6 | | V |
| Collector cut-off current | **$I_{CBO}$** | $V_{CB}$=400V, $I_E$=0 | | 100 | nA |
| Emitter cut-off current | **$I_{EBO}$** | $V_{EB}$=4V, $I_C$=0 | | 100 | nA |
| DC current gain | $h_{FE(1)}$* | $V_{CE}$=10V, $I_C$=1mA | 40 | | |
| | $h_{FE(2)}$* | $V_{CE}$=10V, $I_C$=10mA | 50 | | 200 |
| | $h_{FE(3)}$* | $V_{CE}$=10V, $I_C$=50mA | 45 | | |
| | $h_{FE(4)}$* | $V_{CE}$=10V, $I_C$=100mA | 40 | | |
| Collector-emitter saturation voltage | **$V_{CE(sat)1}$*** | $I_C$=1mA, $I_B$=0.1mA | | 0.40 | V |
| Collector-emitter saturation voltage | **$V_{CE(sat)2}$*** | $I_C$=10mA, $I_B$=1mA | | 0.50 | V |
| Collector-emitter saturation voltage | **$V_{CE(sat)3}$*** | $I_C$=50mA, $I_B$=5mA | | 0.75 | V |
| Base -emitter saturation voltage | **$V_{BE(sat)}$*** | $I_C$=10mA, $I_B$=1mA | | 0.75 | V |
| Collector output capacitance | **Cob** | $V_{CB}$=20V, $I_E$=0; f=1MHz | | 7 | pF |
| Emitter input capacitance | **Cib** | $V_{eB}$=0.5V, $I_C$=0; f=1MHz | | 130 | pF |

*Pulse test: pulse width≤300us, duty cycle≤2. 0%.

# RATINGS AND CHARACTERISTIC CURVES

## Typical characteristics