

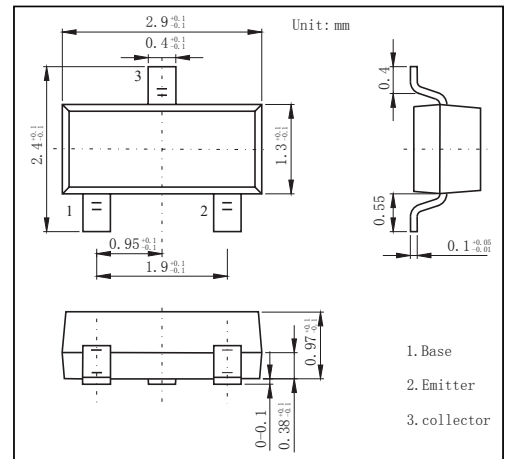
## SOT-23 Plastic-Encapsulate Transistors

### FEATURES

- Low Cob.Cob=2.0pF (Typ.)
- NPN Transistors

### MECHANICAL DATA

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



### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Parameter                   | Symbol    | Value             | Unit |
|-----------------------------|-----------|-------------------|------|
| Collector-base voltage      | $V_{CB0}$ | 60                | V    |
| Collector-emitter voltage   | $V_{CEO}$ | 50                | V    |
| Emitter-base voltage        | $V_{EB0}$ | 7                 | V    |
| Collector current           | $I_C$     | 0.15              | A    |
| Collector power dissipation | $P_C$     | 0.2               | W    |
| Junction temperature        | $T_j$     | 150               | °C   |
| Storage temperature         | $T_{stg}$ | - 5 5 t o + 1 5 0 | °C   |

| Parameter                            | Symbol        | Test Conditions                        | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|-----|-----|------|
| Collector- base breakdown voltage    | $V_{CB0}$     | $I_C = 50 \mu A, I_E = 0$              | 60  |     |     | V    |
| Collector- emitter breakdown voltage | $V_{CEO}$     | $I_C = 1 mA, I_B = 0$                  | 50  |     |     |      |
| Emitter - base breakdown voltage     | $V_{EB0}$     | $I_E = 50 \mu A, I_C = 0$              | 7   |     |     |      |
| Collector-base cut-off current       | $I_{CB0}$     | $V_{CB} = 60 V, I_E = 0$               |     |     | 100 | nA   |
| Emitter cut-off current              | $I_{EB0}$     | $V_{EB} = 7V, I_C = 0$                 |     |     | 100 |      |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 50 mA, I_B = 5mA$               |     |     | 0.4 | V    |
| Base - emitter saturation voltage    | $V_{BE(sat)}$ | $I_C = 50 mA, I_B = 5mA$               |     |     | 1.2 |      |
| DC current gain                      | $h_{FE}$      | $V_{CE} = 6V, I_C = 1mA$               | 120 |     | 560 |      |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = 12V, I_E = 0, f = 1MHz$      |     | 2   | 3.5 | pF   |
| Transition frequency                 | $f_T$         | $V_{CE} = 12V, I_E = -2mA, f = 100MHz$ | 80  |     |     | MHz  |

## RATINGS AND CHARACTERISTIC CURVES

