

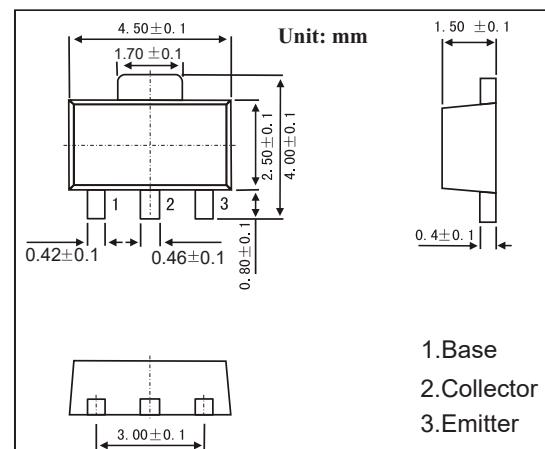
SOT-89 Plastic-Encapsulate Transistors

FEATURES

- Small Flat Package
- High Speed Switching Time
- Low Collector-emitter saturation voltage
- TRANSISTOR (NPN)

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_{CBO} | 50 | V |
| Collector-Emitter Voltage | V_{CEO} | 50 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 2 | A |
| Collector Power Dissipation | P_C | 500 | mW |
| Thermal Resistance From Junction To Ambient | $R_{\theta JA}$ | 250 | °C/W |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature | T_{stg} | -55~+150 | °C |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---------------------------------|-----|-----|-----|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=100\mu A, I_E=0$ | 50 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=1mA, I_B=0$ | 50 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=100\mu A, I_C=0$ | 5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=50V, I_E=0$ | | | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=5V, I_C=0$ | | | 0.1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=2V, I_C=0.5A$ | 82 | | 390 | |
| | $h_{FE(2)}$ | $V_{CE}=2V, I_C=2A$ | 20 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=1A, I_B=50mA$ | | | 0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=1A, I_B=50mA$ | | | 1.2 | V |
| Transition frequency | f_T | $V_{CE}=2V, I_C=0.5A, f=100MHz$ | | 120 | | MHz |

RATINGS AND CHARACTERISTIC CURVES

