

## SOT-89 Plastic-Encapsulate Transistors

### FEATURES

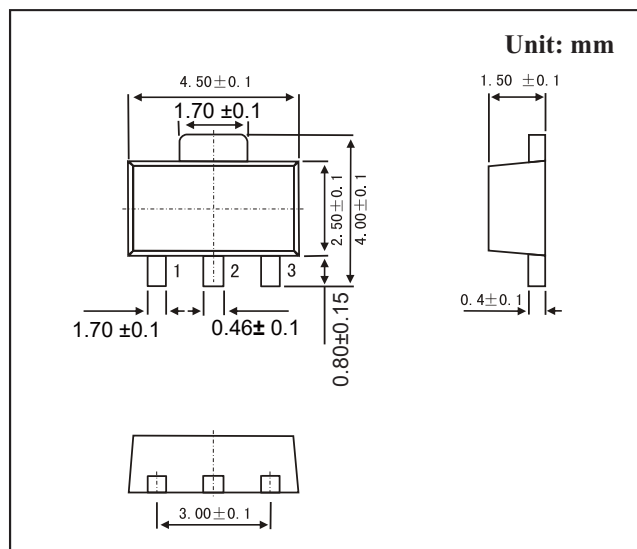
- Subminiature encapsulated flat polarized relay

### MECHANICAL DATA

- Case style:SOT-89molded plastic
- Mounting position:any

### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)



| Parameter                     | Symbol    | Value       | Unit |
|-------------------------------|-----------|-------------|------|
| Collector-Base Voltage        | $V_{CBO}$ | -80         | V    |
| Collector-Emitter Voltage     | $V_{CEO}$ | -80         | V    |
| Emitter-Base Voltage          | $V_{EBO}$ | -5          | V    |
| Collector Current -Continuous | $I_C$     | -0.4        | A    |
| Collector Power Dissipation   | $P_C$     | 0.5         | W    |
| Junction Temperature          | $T_J$     | 150         | °C   |
| Storage Temperature           | $T_{stg}$ | -55 to +150 | °C   |

| Parameter                            | Symbol        | Test Conditions                    | Min   | Typ | Max  | Unit |
|--------------------------------------|---------------|------------------------------------|-------|-----|------|------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -1mA, I_E = 0$              | -80   |     |      | V    |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -10mA, I_B = 0$             | -80   |     |      | V    |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -1mA, I_C = 0$              | -5    |     |      | V    |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -80V, I_E = 0$           |       |     | -0.1 | μA   |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5V, I_C = 0$            |       |     | -0.1 | μA   |
| DC current gain                      | $h_{FE(1)}$   | $V_{CE} = -2V, I_C = -50mA$        | 70    |     | 240  |      |
|                                      | $h_{FE(2)}$   | $V_{CE} = -2V, I_C = -200mA$       | 40    |     |      |      |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -200mA, I_B = -20mA$        |       |     | -0.4 | V    |
| Base-emitter voltage                 | $V_{BE}$      | $V_{CE} = -2V, I_C = -5mA$         | -0.55 |     | -0.8 | V    |
| Transition frequency                 | $f_T$         | $V_{CE} = -10V, I_C = -10mA$       |       | 120 |      | MHz  |
| Collector output capacitance         | $C_{ob}$      | $V_{CB} = -10V, I_E = 0, f = 1MHz$ |       | 14  |      | pF   |

# RATINGS AND CHARACTERISTIC CURVES

