

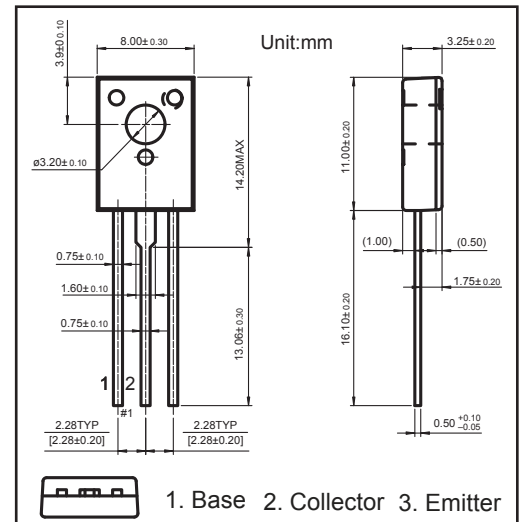
TO-126 Plastic-Encapsulate Transistors

FEATURES

- Low Voltage
- High Current
- TRANSISTOR (NPN)

MECHANICAL DATA

- Case style: TO-126 molded 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 | 3 | A |
| Collector Power Dissipation | P_C | 1 | W |
| Thermal Resistance From Junction To Ambient | $R_{\theta JA}$ | 125 | °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 | $V_{(BR)CEO}$ | $I_C=5mA, I_B=0$ | 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} | $V_{CB}=50V, I_E=0$ | | | 1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=3V, I_C=0$ | | | 1 | μA |
| DC current gain | $h_{FE(1)}$ * | $V_{CE}=2V, I_C=20mA$ | 100 | | | |
| | $h_{FE(2)}$ * | $V_{CE}=2V, I_C=1A$ | 100 | | 400 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=100\mu A, I_B=200mA$ | | | 0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=100\mu A, I_B=200mA$ | | | 2 | V |
| Collector output capacitance | C_{ob} | $V_{CB}=10V, I_E=0, f=1MHz$ | | 45 | | pF |
| Transition frequency | f_T | $V_{CE}=5V, I_C=100mA$ | | 80 | | MHz |

*Pulse test: pulse width $\leq 300\mu s$, duty cycle $\leq 2.0\%$