

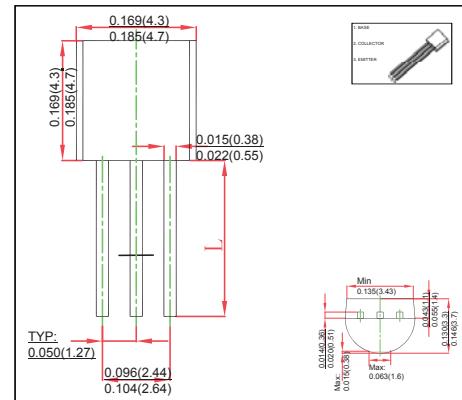
TO-92 Plastic-Encapsulate Transistors

FEATURE

- Power switching applications
- TRANSISTOR (NPN)

MECHANICAL DATA

- Case style:TO-92 molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|-------------------------------|--------|-----------|------|
| Collector -Base Voltage | VCBO | 600 | V |
| Collector-Emitter Voltage | VCEO | 400 | V |
| Emitter-Base Voltage | VEBO | 7 | V |
| Collector Current -Continuous | IC | 0.2 | A |
| Collector Power Dissipation | PC | 0.75 | W |
| Junction Temperature | TJ | 150 | °C |
| Storage Temperature | Tstg | -55 ~+150 | °C |

Electrical Specification($T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------|--|-----|-----|-----|---------------|
| Collector-base breakdown voltage | V(BR)CBO | $I_C= 100\mu\text{A}, I_B=0$ | 600 | | | V |
| Collector-emitter breakdown voltage | V(BR)CEO | $I_C= 1\text{mA}, I_B=0$ | 400 | | | V |
| Emitter-base breakdown voltage | V(BR)EBO | $I_E= 100\mu\text{A}, I_E=0$ | 7 | | | V |
| Collector cut-off current | ICBO | $V_{CB}= 600\text{V}, I_E=0$ | | | 100 | μA |
| Collector cut-off current | ICEO | $V_{CE}= 400\text{V}, I_B=0$ | | | 200 | μA |
| Emitter cut-off current | IEBO | $V_{EB}= 400\text{V}, I_C=0$ | | | 100 | μA |
| DC current gain | hFE(1) | $V_{CE}= 20\text{V}, I_C= 20\text{mA}$ | 14 | | 29 | |
| | hFE(2) | $V_{CE}= 10\text{V}, I_C= 0.25 \text{ mA}$ | 5 | | | |
| Collector-emitter saturation voltage | VCE(sat) | $I_C= 50\text{mA}, I_B= 10 \text{ mA}$ | | | 0.5 | V |
| Base-emitter saturation voltage | VBE(sat) | $I_C= 50 \text{ mA}, I_B= 10\text{mA}$ | | | 1.2 | V |
| Transition frequency | f _t | $V_{CE}= 20\text{V}, I_C=20\text{mA}$ $f = 1\text{MHz}$ | 8 | | | |
| Fall time | t _f | $I_C=50\text{mA}, I_B1=-I_B2=5\text{mA}, VCC=45\text{V}$ | | | 0.3 | μs |
| Storage time | t _s | | | | 1.5 | μs |