

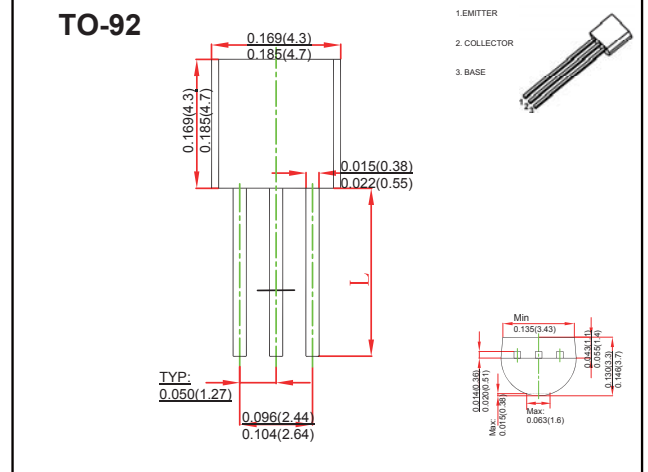
TO-92 Plastic-Encapsulate Transistors

FEATURES

- General Purpose Application Switching Application
- TRANSISTOR (PNP)

MECHANICAL DATA

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



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------|---|------------|-------|
| V_{CBO} | Collector-Base Voltage | -35 | V |
| V_{CEO} | Collector-Emitter Voltage | -30 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current -Continuous | -500 | mA |
| P_C | Collector Power Dissipation | 500 | mW |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient | 250 | °C /W |
| T_j | Junction Temperature | 150 | °C |
| T_{stg} | Storage Temperature | -55 ~ +150 | °C |

ELECTRICAL CHARACTERISTICS $T_a = 25^\circ\text{C}$ unless otherwise specified

| Parameter | Symbol | Test conditions | Min | Typ | | |
|--------------------------------------|---------------|--|-----|-------|-----|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = -100\mu\text{A}, I_E = 0$ | -35 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = -1\text{mA}, I_B = 0$ | -30 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = -100\mu\text{A}, I_C = 0$ | -5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = -35\text{V}, I_E = 0$ | | -0.1 | | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -5\text{V}, I_C = 0$ | | -0.1 | | μA |
| DC current gain | h_{FE1} | $V_{CE} = -1\text{V}, I_C = -100\text{mA}$ | 70 | | 240 | |
| | h_{FE2} | $V_{CE} = -6\text{V}, I_C = -400\text{mA}$ | 25 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100\text{mA}, I_B = -10\text{mA}$ | | -0.25 | | V |
| Base-emitter voltage | $V_{BE(on)}$ | $V_{CE} = -1\text{V}, I_C = -100\text{mA}$ | | -1 | | V |
| Transition frequency | f_T | $V_{CE} = -6\text{V}, I_C = -20\text{mA}$ $f = 100\text{MHz}$ | | 200 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -6\text{V}, I_E = 0, f = 1\text{MHz}$ | | 13 | | pF |

CLASSIFICATION OF h_{FE}

| Rank | | O | Y |
|-------|-------------|---------|---------|
| Range | $h_{FE(1)}$ | 70-140 | 120-240 |
| | $h_{FE(2)}$ | 25(min) | 40(min) |