

TO-92 Plastic-Encapsulate Transistors

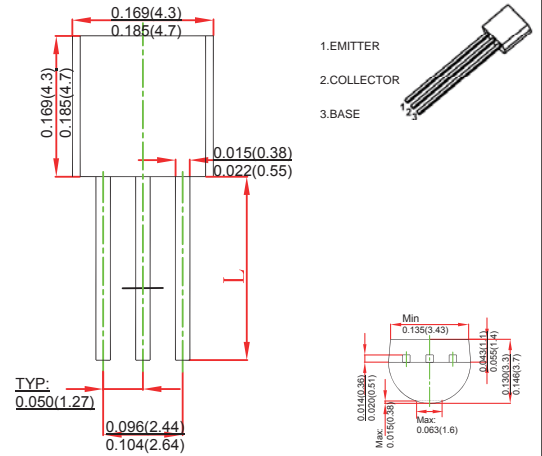
FEATURES

- General Purpose Switching and Amplification.
- TRANSISTOR (PNP)

MECHANICAL DATA

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

TO-92



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Symbol | Parameter | Value | Unit |
|-----------------|---|----------|-------|
| V_{CBO} | Collector-Base Voltage | -40 | V |
| V_{CEO} | Collector-Emitter Voltage | -25 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current -Continuous | -1.5 | A |
| P_C | Collector Power Dissipation | 1 | W |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 125 | °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 | Max | Unit |
|--------------------------------------|---------------|--|-----|-----|------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=-0.1\text{mA}, I_E=0$ | -40 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=-0.1\text{mA}, I_B=0$ | -25 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=-0.1\text{mA}, I_C=0$ | -5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=-40\text{V}, I_E=0$ | | | -0.1 | μA |
| Collector cut-off current | I_{CEO} | $V_{CE}=-20\text{V}, I_B=0$ | | | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=-5\text{V}, I_C=0$ | | | -0.1 | μA |
| DC current gain | $h_{FE(1)}$ | $V_{CE}=-1\text{V}, I_C=-100\text{mA}$ | 85 | | 300 | |
| | $h_{FE(2)}$ | $V_{CE}=-1\text{V}, I_C=-800\text{mA}$ | 40 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-800\text{mA}, I_B=-80\text{mA}$ | | | -0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C=-800\text{mA}, I_B=-80\text{mA}$ | | | -1.2 | V |
| Transition frequency | f_T | $V_{CE}=-10\text{V}, I_C=-50\text{mA}, f=30\text{MHz}$ | 100 | | | MHz |

CLASSIFICATION OF $h_{FE(1)}$

| RANK | B | C | D |
|-------|--------|---------|---------|
| RANGE | 85-160 | 120-200 | 160-300 |

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

