

## TO-92 Plastic-Encapsulate Transistors

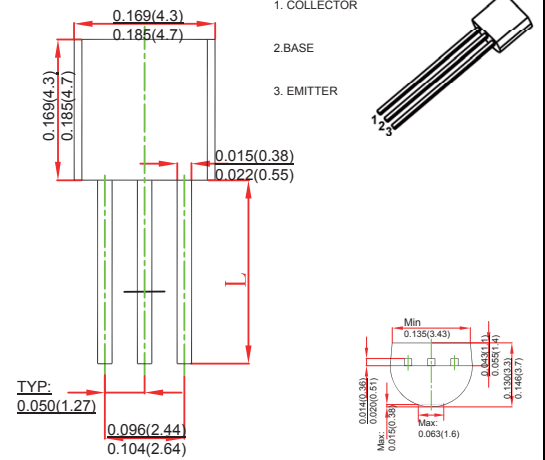
### FEATURES

- Power dissipation
- 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        | <b>BC327</b> | -50  |
|           |                               | <b>BC328</b> | -30  |
| $V_{CEO}$ | Collector-Emitter Voltage     | <b>BC327</b> | -45  |
|           |                               | <b>BC328</b> | -25  |
| $V_{EBO}$ | Emitter-Base Voltage          | -5           | V    |
| $I_C$     | Collector Current -Continuous | -800         | mA   |
| $P_C$     | Collector Power Dissipation   | 625          | mW   |
| $T_j$     | 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<br><b>BC327</b><br><b>BC328</b>    | $V_{CBO}$     | $I_C = -100\mu\text{A}, I_E = 0$                                   | -50<br>-30 |     |              | V             |
| Collector-emitter breakdown voltage<br><b>BC327</b><br><b>BC328</b> | $V_{CEO}$     | $I_C = -10\text{mA}, I_B = 0$                                      | -45<br>-25 |     |              | V             |
| Emitter-base breakdown voltage                                      | $V_{EBO}$     | $I_E = -10\mu\text{A}, I_C = 0$                                    | -5         |     |              | V             |
| Collector cut-off current<br><b>BC327</b><br><b>BC328</b>           | $I_{CBO}$     | $V_{CB} = -45\text{V}, I_E = 0$<br>$V_{CB} = -25\text{V}, I_E = 0$ |            |     | -0.1<br>-0.1 | $\mu\text{A}$ |
| Collector cut-off current<br><b>BC327</b><br><b>BC328</b>           | $I_{CEO}$     | $V_{CE} = -40\text{V}, I_B = 0$<br>$V_{CE} = -20\text{V}, I_B = 0$ |            |     | -0.2<br>-0.2 | $\mu\text{A}$ |
| Emitter cut-off current   | $I_{EBO}$     | $V_{EB} = -4\text{V}, I_C = 0$                                     |            |     | -0.1         | $\mu\text{A}$ |
| DC current gain   | $h_{FE(1)}$   | $V_{CE} = -1\text{V}, I_C = -100\text{mA}$                         | 100        |     | 630          |               |
|   | $h_{FE(2)}$   | $V_{CE} = -1\text{V}, I_C = -300\text{mA}$                         | 40         |     |              |               |
| Collector-emitter saturation voltage                                | $V_{CE(sat)}$ | $I_C = -500\text{mA}, I_B = -50\text{mA}$                          |            |     | -0.7         | V             |
| Base-emitter saturation voltage                                     | $V_{BE(sat)}$ | $I_C = -500\text{mA}, I_B = -50\text{mA}$                          |            |     | -1.2         | V             |
| Base-emitter voltage  | $V_{BE}$      | $V_{CE} = -1\text{V}, I_C = -300\text{mA}$                         |            |     | -1.2         | V             |
| Transition frequency  | $f_T$         | $V_{CE} = -5\text{V}, I_C = -10\text{mA}$<br>$f = 100\text{MHz}$   | 260        |     |              | MHz           |
| Collector Output Capacitance  | $C_{ob}$      | $V_{CB} = -10\text{V}, I_E = 0$<br>$f = 1\text{MHz}$               |            | 12  |              | pF            |

### CLASSIFICATION OF $h_{FE}$

| Rank  | 16      | 25      | 40      |
|-------|---------|---------|---------|
| Range | 100-250 | 160-400 | 250-630 |

# RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

