

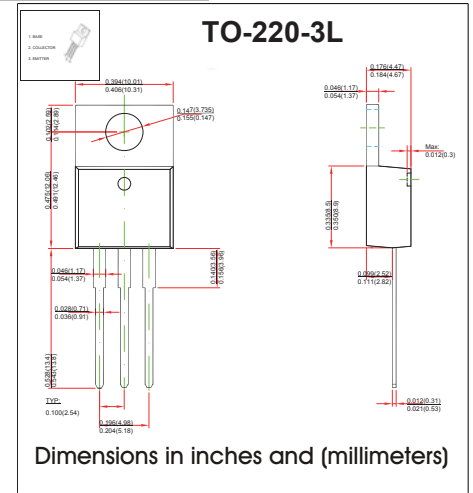
TO-220-3L Plastic-Encapsulate Transistors

FEATURES

- Medium Power Linear Switching Applications
- Complement to TIP41/41A/41B/41C
- TRANSISTOR (PNP)

MECHANICAL DATA

- Case style:TO-220-3L molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Symbol | Parameter | TIP42 | TIP42A | TIP42B | TIP42C | Unit |
|-----------|-------------------------------|-----------|--------|--------|--------|------|
| V_{CB0} | Collector-Base Voltage | -40 | -60 | -80 | -100 | V |
| V_{CEO} | Collector-Emitter Voltage | -40 | -60 | -80 | -100 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | | | | V |
| I_C | Collector Current -Continuous | -6 | | | | A |
| P_C | Collector Power Dissipation | 2 | | | | W |
| T_J | Junction Temperature | 150 | | | | °C |
| T_{stg} | Storage Temperature Range | -55to+150 | | | | °C |

| Parameter | Symbol | Test conditions | Min | Max | Unit |
|--------------------------------------|--|---|---------------------------|------|------|
| Collector-base breakdown voltage | TIP42 TIP42A TIP42B TIP42C $V_{(BR)CBO}$ | $I_C = -1mA, I_E = 0$ | -40 -60 -80 -100 | | V |
| Collector-emitter breakdown voltage | TIP42 TIP42A TIP42B TIP42C $V_{(BR)CEO}^*$ | $I_C = -30mA, I_B = 0$ | -40 -60 -80 -100 | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = -1mA, I_C = 0$ | -5 | | V |
| Collector cut-off current | TIP42 TIP42A TIP42B TIP42C I_{CBO} | $V_{CB} = -40V, I_E = 0$ $V_{CB} = -60V, I_E = 0$ $V_{CB} = -80V, I_E = 0$ $V_{CB} = -100V, I_E = 0$ | | -0.4 | mA |
| Collector cut-off current | TIP42/42A TIP42B/42C I_{CEO} | $V_{CE} = -30V, I_B = 0$ $V_{CE} = -60V, I_B = 0$ | | -0.7 | mA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -5V, I_C = 0$ | | -1 | mA |
| DC current gain | $h_{FE(1)}$ | $V_{CE} = -4V, I_C = -0.3A$ | 30 | | |
| | $h_{FE(2)}$ | $V_{CE} = -4V, I_C = -3A$ | 15 | 75 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -6A, I_B = -0.6A$ | | -1.5 | V |
| Base-emitter voltage | V_{BE} | $V_{CE} = -4V, I_C = -6A$ | | -2 | V |
| Transition frequency | f_T | $V_{CE} = -10V, I_C = -0.5$ | 3 | | MHz |

*Pulse test

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

