

TO-220 Plastic-Encapsulate Transistors

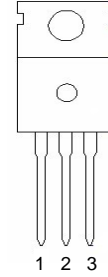
TIP41/41A/41B/41C TRANSISTOR (NPN)

FEATURES

Medium Power Linear Switching Applications

TO-220

1. BASE
2. COLLECTOR
3. EMITTER



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

| Symbol | Parameter | TIP41 | TIP41A | TIP41B | TIP41C | 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 | -55~+150 | | | | °C |

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Max | Unit |
|--------------------------------------|----------------------|---|-------------------------|-----|------|
| Collector-base breakdown voltage | TIP41 | V _{(BR)CBO} I _C = 1mA, I _E =0 | 40 | | V |
| | TIP41A | | 60 | | |
| | TIP41B | | 80 | | |
| | TIP41C | | 100 | | |
| Collector-emitter breakdown voltage | TIP41 | V _{CEO(sus)} I _C = 30mA, I _B =0 | 40 | | V |
| | TIP41A | | 60 | | |
| | TIP41B | | 80 | | |
| | TIP41C | | 100 | | |
| Emitter-base breakdown voltage | V _{(BR)EBO} | I _E = 1mA, I _C =0 | 5 | | V |
| Collector cut-off current | 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 |
| | | | TIP41 | | |
| | | | TIP41A | | |
| | | | TIP41B | | |
| Collector cut-off current | I _{CEO} | V _{CE} = 30V, I _B = 0 V _{CE} = 60V, I _B = 0 | 0.7 | | mA |
| | | | TIP41/41A TIP41B/41C | | |
| 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} =4 V, 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(on)} | V _{CE} = 4V, I _C =6A | | 2 | V |
| Transition frequency | f _T | V _{CE} =10V, I _C =0.5A f =1MHz | 3 | | MHz |