

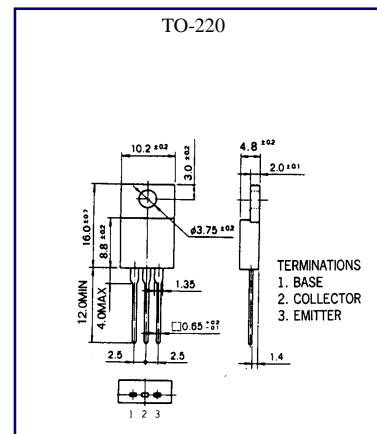


TIP41 SERIES (TIP41/41A/41B/41C)

NPN EPITAXIAL SILICON TRANSISTOR

MEDIUM POWER LINEAR SWITCHING APPLICATIONS

•Complementary to TIP42/42A/42B/42C



ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

| Characteristic | Symbol | Rating | Unit |
|--|------------------|---------|------|
| Collector-Base Voltage :TIP41 | V _{CB0} | 40 | V |
| :TIP41A | | 60 | V |
| :TIP41B | | 80 | V |
| :TIP41C | | 100 | V |
| Collector-Emitter Voltage :TIP41 | V _{CE0} | 40 | V |
| :TIP41A | | 60 | V |
| :TIP41B | | 80 | V |
| :TIP41C | | 100 | V |
| Emitter-Base voltage | V _{EBO} | 5 | V |
| Collector Current (DC) | I _C | 6 | A |
| Collector Current (Pulse) | I _C | 10 | A |
| Base Current (DC) | I _B | 2 | A |
| Collector Dissipation (T _c =25°C) | P _C | 65 | W |
| Junction Temperature | T _j | 150 | |
| Storage Temperature | T _{stg} | -50~150 | |

ELECTRICAL CHARACTERISTICS (Ta=25°C)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|---------------------------------------|---|------------------------|--|-----|-----|------|
| Collector Emitter Sustaining Voltage | :TIP41 :TIP41A :TIP41B :TIP41C | BV _{CEO(SUS)} | I _C =30mA, I _B =0 | 40 | | V |
| | | | | 600 | | V |
| | | | | 80 | | V |
| | | | | 100 | | V |
| Collector Cutoff Current | :TIP41/41A | ICEO | V _{CE} = 30V, I _B =0 | | 0.7 | mA |
| | :TIP41B/41C | | V _{CE} = 60V, I _B =0 | | 0.7 | mA |
| Collector Cutoff Current | :TIP41 | ICES | V _{CE} = 40V, V _{EB} = | | 400 | μA |
| | :TIP41A | | 0 | | 400 | μA |
| | :TIP41B | | V _{CE} = 60V, V _{EB} = | | 400 | μA |
| | :TIP41C | | 0 | | 400 | μA |
| Emitter Cutoff Current | | IEBO | V _{CE} = 80V, V _{EB} = | | 1 | mA |
| DC Current Gain | | hFE | 0 | 30 | | |
| | | | V _{CE} = 100V, V _{EB} = | 15 | 75 | |
| Collector- Emitter Saturation Voltage | | V _{CE(sat)} | 0 | | 1.5 | V |
| Base- Emitter On Voltage | | V _{BE(on)} | V _{EB} = 5V, I _C =0 | | 2.0 | V |
| Current Gain Bandwith Product | | f _T | V _{CE} = 4V, I _C =0.3A | 3.0 | | MHZ |
| | | | V _{CE} = 4V, I _C =3A | | | |
| | | | I _C =6A, I _B =600mA | | | |
| | | | V _{CE} = 4V, I _C =6A | | | |
| | | | V _{CE} = 10V, | | | |
| | | | I _C =500mA | | | |
| | | | f=1MHZ | | | |