

UTC TIP42C

PNPEPITAXIAL PLANAR TRANSISTOR

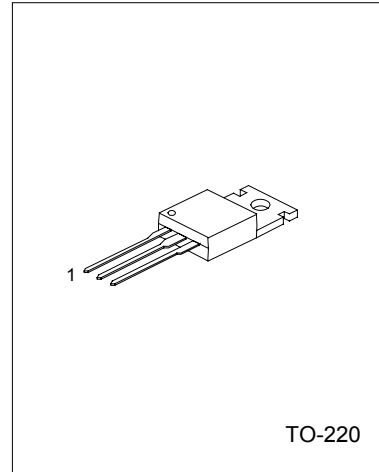
PNP EPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

The UTC TIP42C is a PNP epitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

FEATURE

*Complement to tip41C



1:BASE 2:COLLECTOR 3:EMITTER

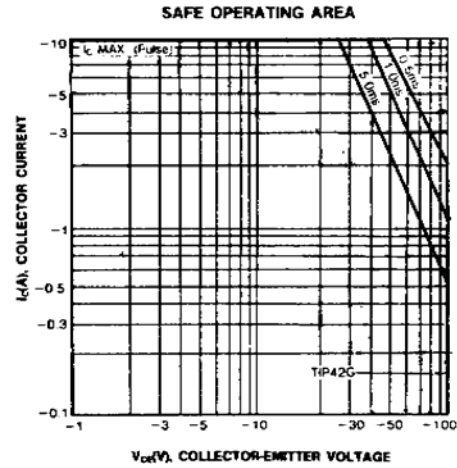
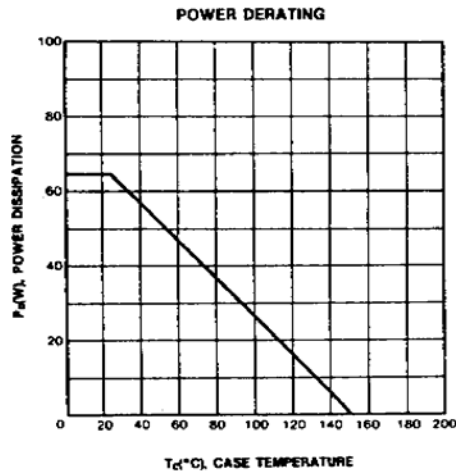
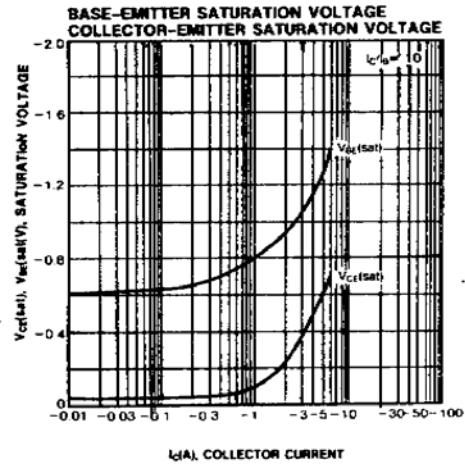
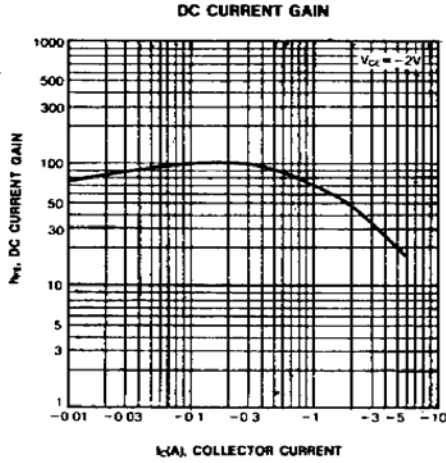
ABSOLUTE MAXIMUM RATINGS

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|------------------|------------|------|
| Collector Base Voltage | V _{CBO} | -100 | V |
| Collector to Emitter Voltage | V _{CEO} | -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 | I _B | -2 | A |
| Collector Dissipation(T _c =25°C) | P _c | 65 | W |
| Collector Dissipation(T _a =25°C) | P _c | 2 | W |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{stg} | -65 ~ +150 | °C |

ELECTRICAL CHARACTERISTICS(T_c=25°C)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---|----------------------|---|----------|-----|------|------|
| Collector Emitter Sustaining voltage(*) | BV _{CEO} | I _C =-30mA, I _B =0 | -100 | | | V |
| Collector cutoff Current | I _{CEO} | V _{CE} =-60V, I _B =0 | | | -0.7 | mA |
| Collector Cutoff Current | I _{CES} | V _{CE} =-100V, V _{EB} =0 | | | -400 | μA |
| Emitter Cutoff current | I _{EBO} | V _{BE} =-5V, I _C =0 | | | -1 | mA |
| Collector-Emitter Saturation Voltage(*) | V _{CE(sat)} | I _C =-6A, I _B =-600mA | | | -1.5 | V |
| Base-Emitter On Voltage(*) | V _{BE(on)} | I _C =-6A, V _{CE} =-4V | | | -2.0 | V |
| DC Current Gain(*) | h _{FE} | I _C =-300mA, V _{CE} =-4V I _C =-3A, V _{CE} =-4V | 30 15 | | 75 | |
| Current gain Bandwidth Product | f _T | V _{CE} =-10V, I _C =-500mA, f=1MHz | 3 | | | MHz |

*Pulse Test: PW<=300μs, Duty Cycle<=2%



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