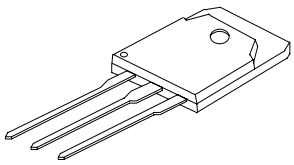
# TIP36C

***PNP SILICON TRANSISTOR***

## HIGH POWER TRANSISTORS



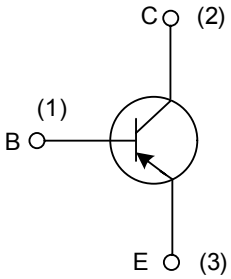
TO-3P

*Pb-free plating product number: TIP36CL

### ■ DESCRIPTION

The UTC TIP36C is a PNP Expitaxial-Base transistor, designed for using in general purpose amplifier and switching applications. Complement to TIP35C

### ■ INTERNAL SCHEMATIC DIAGRAM




### ■ ORDERING INFORMATION

| Order Number | | Package | Pin Assignment | | | Packing |
|---|---|---|---|---|---|---|
| Normal | Lead Free Plating | | 1 | 2 | 3 | |
| TIP36C-T3P-K | TIP36C-T3P-K | TO-3P | B | C | E | Bulk |

| | |
|---|---|
| TIP36CL-T3P-K<br>(1)Packing Type<br>(2)Package Type<br>(3)Lead Plating | (1) K: Bulk<br>(2) T3P: TO-3P<br>(3) L: Lead Free Plating, Blank: Pb/Sn |

## ■ ABSOLUTE MAXIMUM RATINGS

| PARAMETER | SYMBOL | RATINGS | UNIT |
|---|---|---|---|
| Collector-Base Voltage ($I_E$ = 0) | $V_{CBO}$ | -100 | V |
| Collector-Emitter Voltage ($I_B$ = 0) | $V_{CEO}$ | -100 | V |
| Emitter-Base Voltage ($I_C$ = 0) | $V_{EBO}$ | -5 | V |
| Collector Current | $I_C$ | -25 | A |
| Collector Peak Current | $I_{CM}$ | -50 | A |
| Base Current | $I_B$ | -5 | A |
| Total Dissipation (Tc =25 ℃) | $P_D$ | 125 | W |
| Junction Temperature | $T_J$ | +150 | ℃ |
| Storage Temperature | $T_{STG}$ | -65 ~ +150 | ℃ |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

## ■ THERMAL DATA

| PARAMETER | SYMBOL | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|
| Thermal Resistance Junction-Case | $\theta_{JC}$ | | | 1 | ℃ / W |

## ■ ELECTRICAL CHARACTERISTICS (Tc =25 ℃, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| Collector Cut-off Current ($I_B$ = 0) | $I_{CEO}$ | $V_{CE}$ = -60 V | | | -1 | mA |
| Emitter Cut-off Current ($I_C$ = 0) | $I_{EBO}$ | $V_{EB}$ = -5 V | | | -1 | mA |
| Collector Cut-off Current ($V_{BE}$ = 0) | $I_{CES}$ | $V_{CE}$ = Rated $V_{CEO}$ | | | -0.7 | mA |
| Collector-Emitter Sustaining Voltage ($I_B$ = 0) | $V_{CEO(SUS)}$* | $I_C$ = -30 mA | -100 | | | V |
| Collector-Emitter Saturation Voltage | $V_{CE(SAT)}$* | $I_B$ = -1.5 A, $I_C$ = -15 A | | | -1.8 | V |
| | | $I_B$ = -5 A, $I_C$ = -25 A | | | -4 | V |
| Base-Emitter Voltage | $V_{BE(ON)}$* | $V_{CE}$ =-4 V, $I_C$ = -15 A | | | -2 | V |
| | | $V_{CE}$ = -4 V, $I_C$ = -25 A | | | -4 | V |
| DC Current Gain | $h_{FE}$* | $V_{CE}$ = -4 V, $I_C$ = -1.5 A | 25 | | 50 | |
| | | $V_{CE}$ = -4 V, $I_C$ = -15 A | 10 | | | |
| Transition Frequency | $f_T$ | $V_{CE}$ = -10 V, $I_C$ = -1 A, f = 1 MHz | 3 | | | MHz |
| Small Signal Current Gain | $h_{fe}$ | $V_{CE}$ = -10 V, $I_C$ = -1 A, f = 1 KHz | 25 | | | |

* Pulsed: Pulse Duration = 300 μs, Duty Cycle ≤ 2 %