



TIP36C

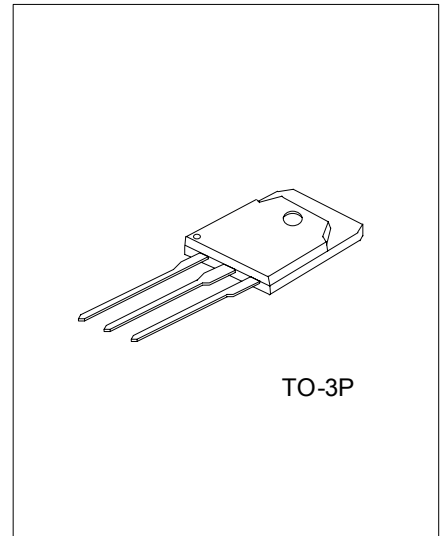
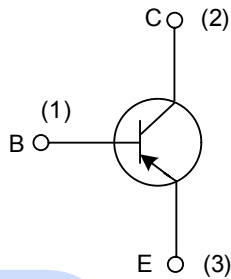
PNP SILICON TRANSISTOR

HIGH POWER TRANSISTORS

DESCRIPTION

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

INTERNAL SCHEMATIC DIAGRAM



TO-3P

*Pb-free plating product number: TIP36CL

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 |

| | |
|---|---|
| <p>TIP36CL-T3P-K</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Lead Plating | <ul style="list-style-type: none"> (1) K: Bulk (2) T3P: TO-3P (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 ($T_c = 25^\circ$) | 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 | θ_{JC} | | | 1 | /W |

■ ELECTRICAL CHARACTERISTICS ($T_c = 25^\circ$, 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} | $V_{CE} = \text{Rated } V_{CEO}$ | | | -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 μ s, Duty Cycle $\leq 2\%$

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