



TIP36C

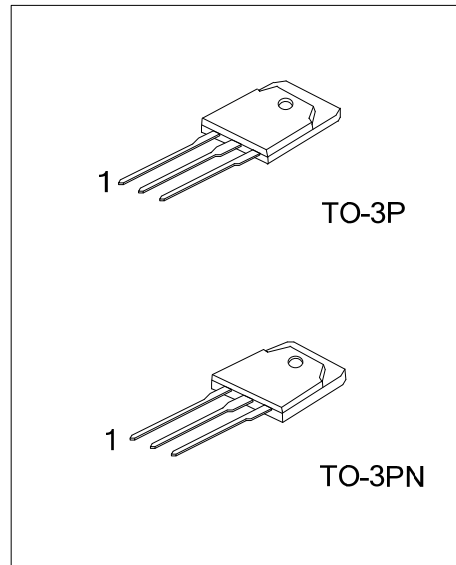
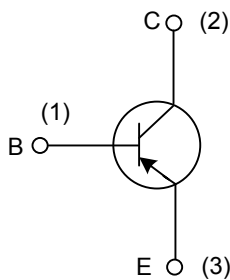
PNP SILICON TRANSISTOR

HIGH POWER TRANSISTORS

■ 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

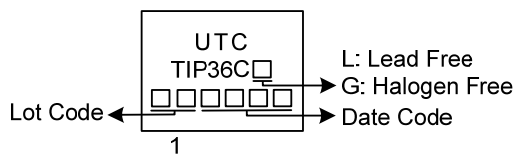


■ ORDERING INFORMATION

| Order Number | | Package | Pin Assignment | | | Packing |
|-----------------|-----------------|---------|----------------|---|---|---------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| TIP36CL-x-T3P-T | TIP36CG-x-T3P-T | TO-3P | B | C | E | Tube |
| TIP36CL-x-T3N-T | TIP36CG-x-T3N-T | TO-3PN | B | C | E | Tube |

| | |
|--|--|
| <p>TIP36CG-x-T3P-T</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p> | <p>(1) T: Tube (2) T3P: TO-3P, T3N: TO-3PN (3) refer to Classification of h_{FE1} (4) G: Halogen Free and Lead Free, L: Lead Free</p> |
|--|--|

■ MARKING



■ 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 ($T_C = 25^\circ\text{C}$) | P_D | 125 | W |
| Junction Temperature | T_J | +150 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -65 ~ +150 | $^\circ\text{C}$ |

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 | $^\circ\text{C/W}$ |

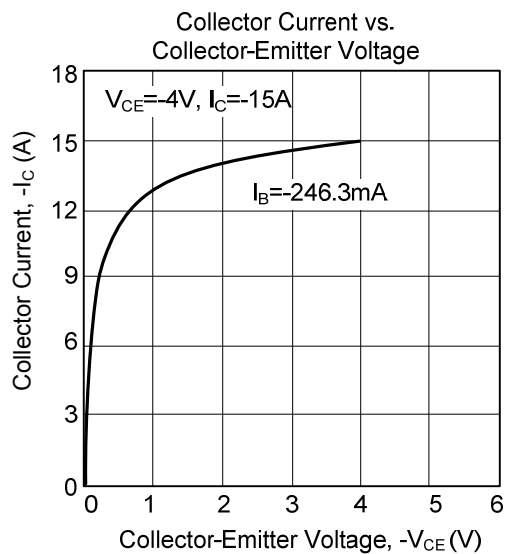
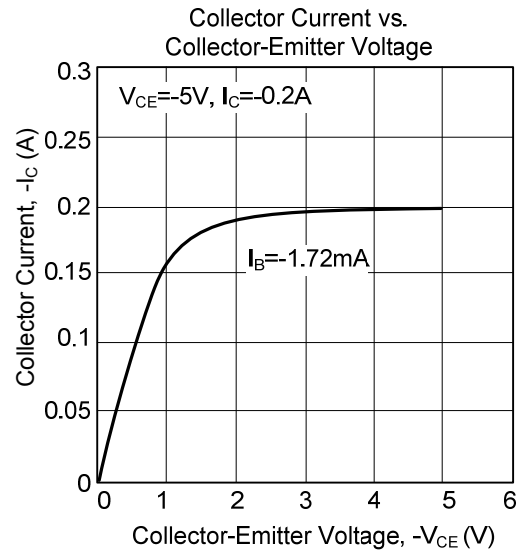
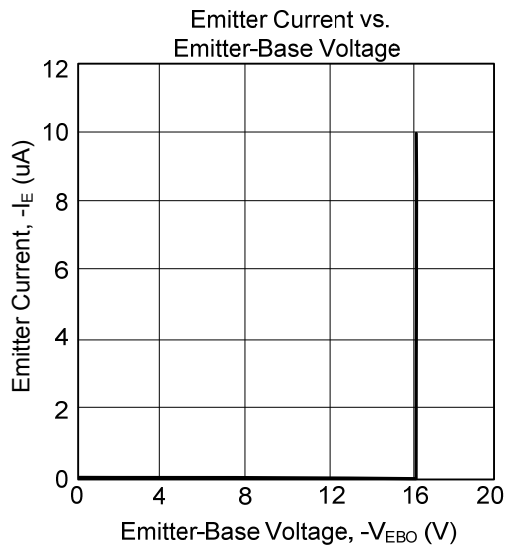
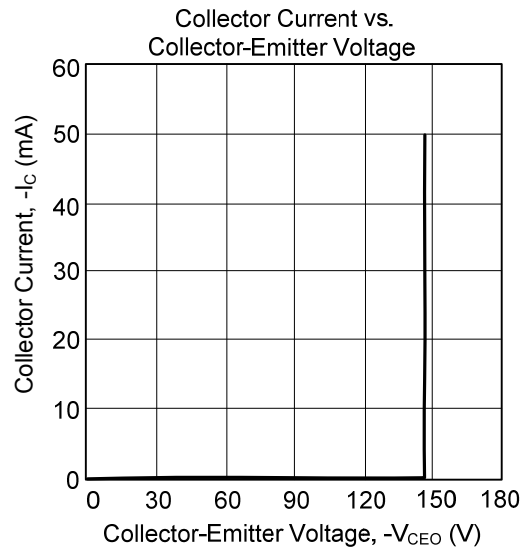
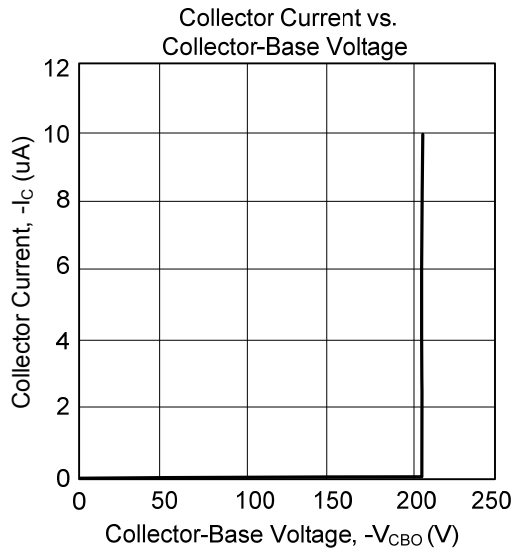
■ ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--|---------------|---|------|-----|------|---------------|
| Collector Cut-off Current ($I_E = 0$) | I_{CBO} | $V_{CB} = -100\text{ V}$ | | | -10 | μA |
| Emitter Cut-off Current ($I_C = 0$) | I_{EBO} | $V_{EB} = -5\text{ V}$ | | | -10 | μA |
| Collector-Emitter Sustaining Voltage ($I_B = 0$) | $V_{(BR)CEO}$ | $I_C = -50\text{ mA}$ | -100 | | | V |
| Collector-Emitter Saturation Voltage | $V_{CE(SAT)}$ | $I_B = -1.5\text{ A}, I_C = -15\text{ A}$ | | | -1.8 | V |
| | | $I_B = -5\text{ A}, I_C = -25\text{ A}$ | | | -4 | V |
| Base-Emitter Voltage | $V_{BE(ON)}$ | $V_{CE} = -5\text{ V}, I_C = -5\text{ A}$ | | | -1.5 | V |
| DC Current Gain | h_{FE1} | $V_{CE} = -5\text{ V}, I_C = -1.5\text{ A}$ | 55 | | 160 | |
| | h_{FE2} | $V_{CE} = -4\text{ V}, I_C = -15\text{ A}$ | 15 | | | |
| Transition Frequency | f_T | $V_{CE} = -5\text{ V}, I_C = -1\text{ A}$ | 3 | | | MHz |

■ CLASSIFICATION OF h_{FE1}

| RANK | R | O |
|-------|--------|--------|
| RANGE | 55~110 | 80~160 |

■ TYPICAL CHARACTERISTICS



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