



## TIP35C

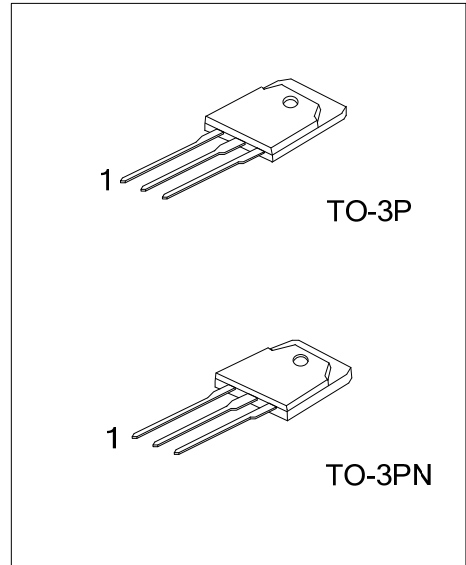
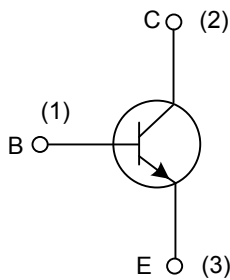
## NPN SILICON TRANSISTOR

### HIGH POWER TRANSISTORS

#### DESCRIPTION

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

#### INTERNAL SCHEMATIC DIAGRAM



#### ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TIP35CL-x-T3P-T	TIP35CG-x-T3P-T	TO-3P	B	C	E	Tube
TIP35CL-x-T3N-T	TIP35CG-x-T3N-T	TO-3PN	B	C	E	Tube

<p>TIP35CL-x-T3P-T</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Rank</li> <li>(4) Lead Plating</li> </ul>	<ul style="list-style-type: none"> <li>(1) T: Tube</li> <li>(2) T3P: TO-3P, T3N: TO-3PN</li> <li>(3) refer to Classification of <math>h_{FE1}</math></li> <li>(4) L: Lead Free, G: Halogen Free</li> </ul>
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### ■ 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	$\theta_{JC}$			1	$^\circ\text{C}/\text{W}$

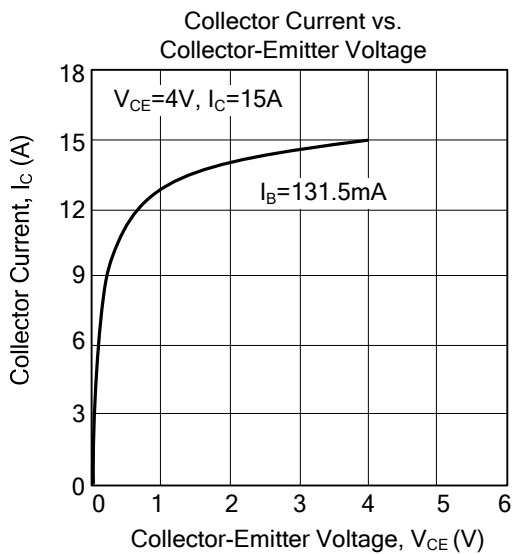
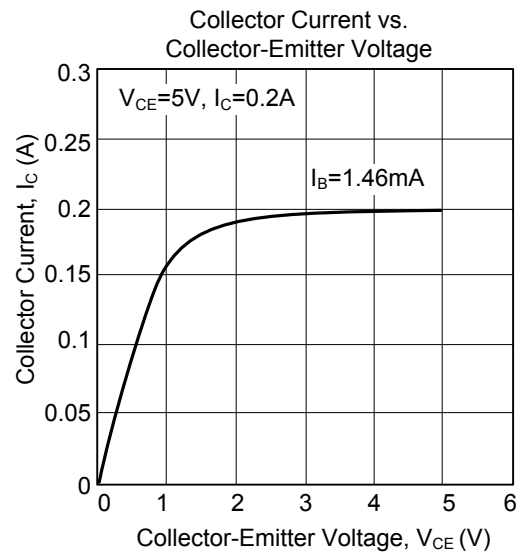
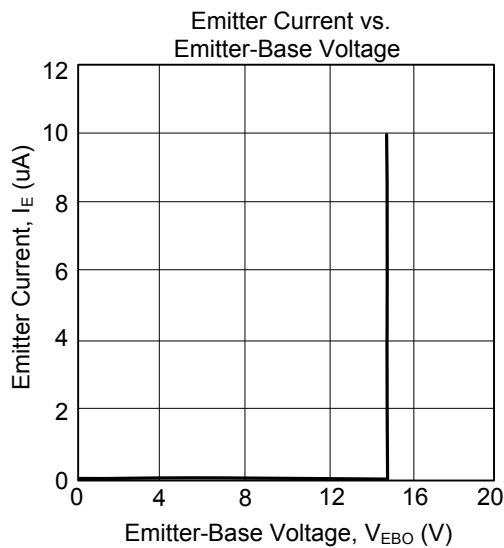
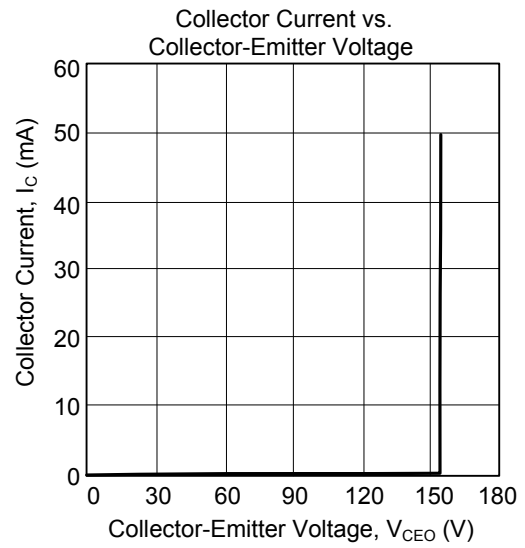
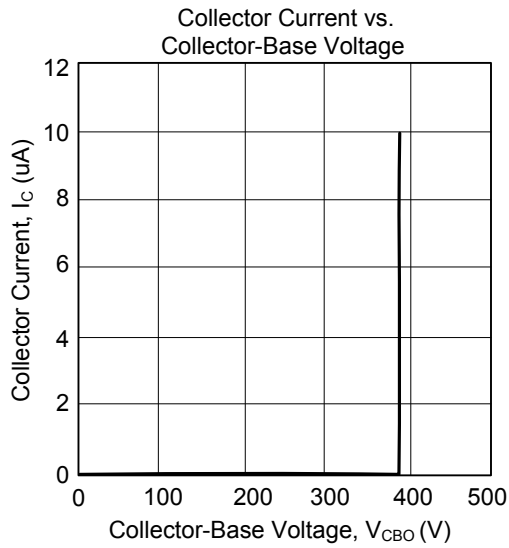
### ■ ELECTRICAL CHARACTERISTICS ( $T_C = 25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-off Current ( $I_E = 0$ )	$I_{CBO}$	$V_{CB} = 100\text{ V}$			10	$\mu\text{A}$
Emitter Cut-off Current ( $I_C = 0$ )	$I_{EBO}$	$V_{EB} = 5\text{ V}$			10	$\mu\text{A}$
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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