



TIP35C

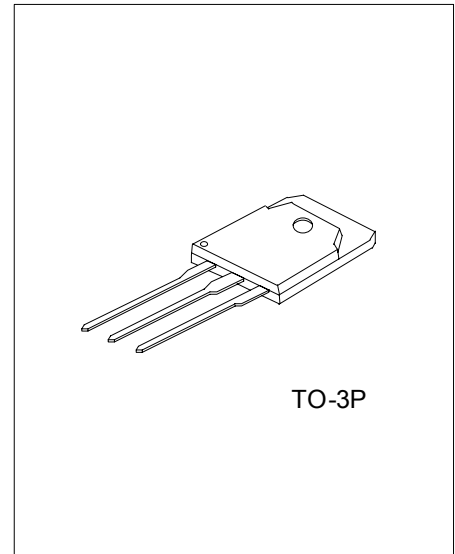
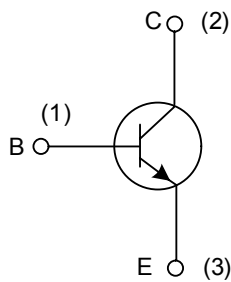
NPN SILICON TRANSISTOR

HIGH POWER TRANSISTORS

■ DESCRIPTION

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

■ INTERNAL SCHEMATIC DIAGRAM



*Pb-free plating product number: TIP35CL

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
TIP35C-T3P-K	TIP35C-T3P-K	TO-3P	B	C	E	Bulk

<p>TIP35CL-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 ($T_c = 25$)	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 ($T_c = 25$, 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 ≤ 2 %

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.