



TIP35C

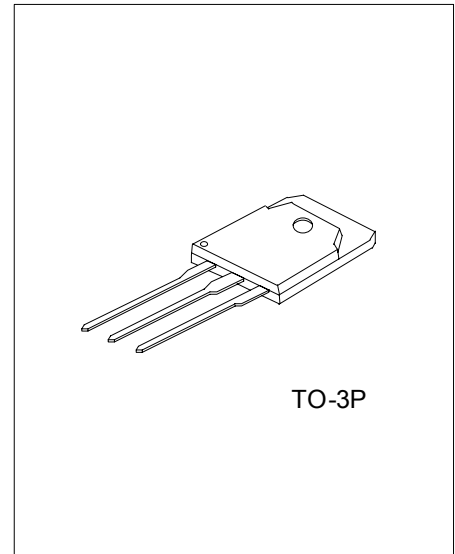
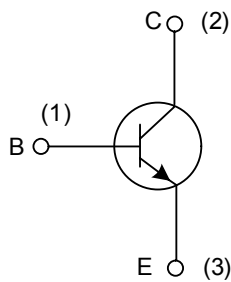
NPN SILICON TRANSISTOR

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



TO-3P

*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
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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 ($T_c = 25$)	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 %

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