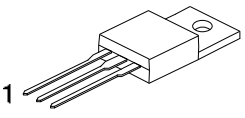
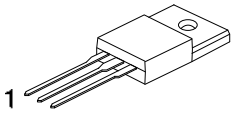
TIP41C

NPN PLANAR TRANSISTOR

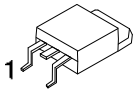
NPN EXPITAXIAL PLANAR TRANSISTOR



TO-220



TO-220F



TO-252

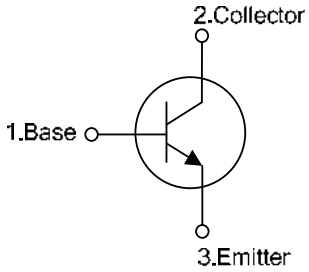
■ DESCRIPTION

The UTC **TIP41C** is a NPN expitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

■ FEATURE

* Complement to TIP42C

■ SYMBOL



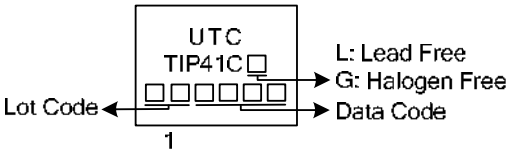
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TIP41CL-x-TA3-T	TIP41CG-x-TA3-T	TO-220	B	C	E	Tube
TIP41CL-x-TF3-T	TIP41CG-x-TF3-T	TO-220F	B	C	E	Tube
TIP41CL-x-TN3-T	TIP41CG-x-TN3-T	TO-252	B	C	E	Tube
TIP41CL-x-TN3-R	TIP41CG-x-TN3-R	TO-252	B	C	E	Tape Reel

Note: Pin Assignment: B: Base C: Collector E: Emitter

TIP41CL-x-TA3-T (1)Packing Type (2)Package Type (3)Rank (4)Green Package	(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TF3: TO-220F, TN3: TO-252 (3) x: refer to Classification of h_{FE2} (4) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING



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■ ABSOLUTE MAXIMUM RATINGS (T_C=25°C, unless otherwise specified)

PARAMETER			SYMBOL	RATING	UNIT
Collector Base Voltage			V_{CBO}	100	V
Collector to Emitter Voltage			V_{CEO}	100	V
Emitter-Base Voltage			V_{EBO}	5	V
Collector Current		DC	I_C	6	A
		Pulse		10	A
Base Current			I_B	2	A
Collector Dissipation	T_C=25°C	TO-220	P_C	65	W
		TO-220F		22	
		TO-252		25	
	T_A=25°C	TO-220		2	W
		TO-220F		0.7	
		TO-252		0.75	
Junction Temperature			T_J	150	°C
Storage Temperature			T_{STG}	-65 ~ +150	°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.

■ ELECTRICAL CHARACTERISTICS (T_C=25°C, unless otherwise specified)

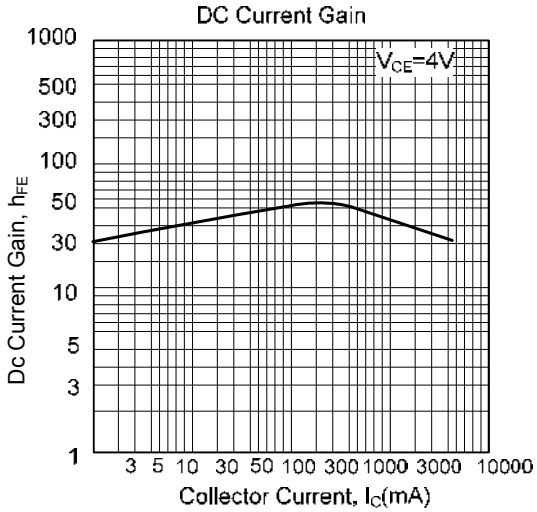
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Emitter Base Breakdown Voltage	BV_{EBO}	I_E=100μA, I_C=0	5			V
Collector Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	100			V
Collector Emitter Sustaining Voltage (Note)	BV_{CEO}	I_C=30mA, I_B=0	100			V
Collector Cutoff Current	I_{CEO}	V_{CE}=60V, I_B=0			0.7	mA
Collector Cutoff Current	I_{CES}	V_{CE}=100V, V_{EB}=0			400	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			1	mA
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	I_C=6A, I_B=600mA			1.5	V
Base-Emitter On Voltage (Note)	$V_{BE(ON)}$	I_C=6A, V_{CE}=4V			2.0	V
DC Current Gain (Note)	h_{FE1}	I_C=300mA, V_{CE}=4V	30			
	h_{FE2}	I_C=3A, V_{CE}=4V	15		75	
Current Gain Bandwidth Product	f_T	V_{CE}=10V, I_C=500mA, f=1MHz	3			MHz

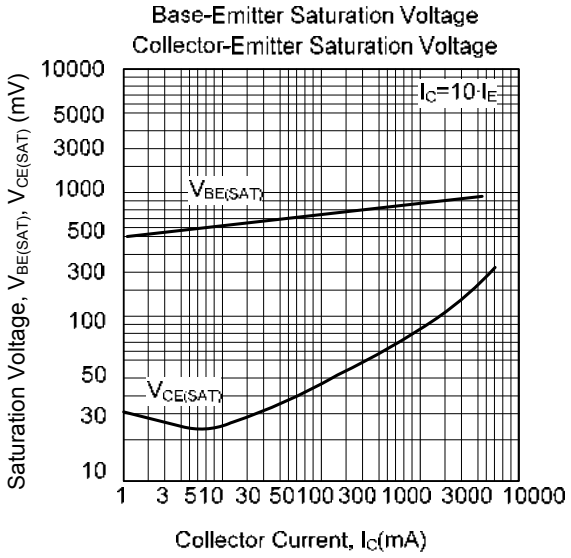
Note: Pulse Test: $P_W \leqq 300\mu s$, Duty Cycle $\leqq 2\%$

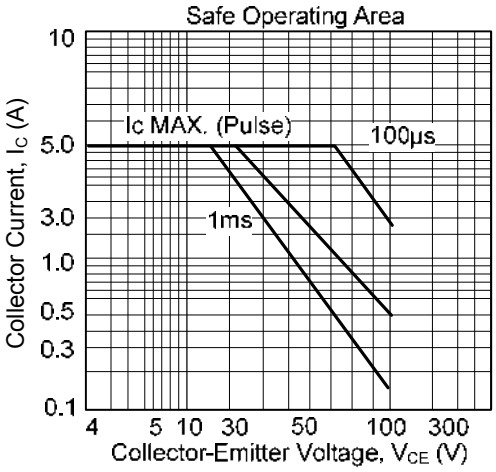
■ CLASSIFICATION OF h_{FE2}

RANK	A	B	C
RANGE	15~30	28~48	45~75

■ TYPICAL CHARACTERISTICS







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