



TIP42C

PNP PLANAR TRANSISTOR

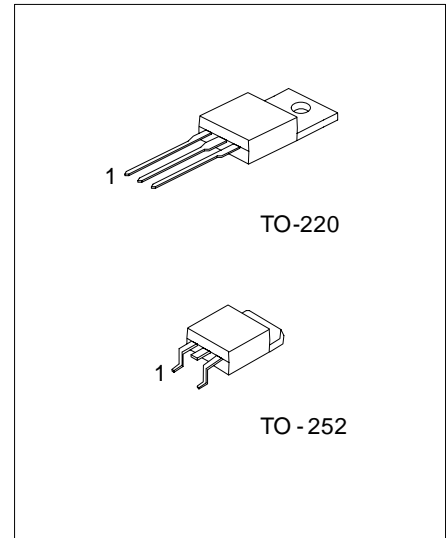
PNP EPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

The UTC **TIP42C** is a PNP epitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

FEATURES

* Complement to TIP41C



*Pb-free plating product number: TIP42CL

ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
TIP42C-TA3-T	TIP42CL-TA3-T	TO-220	B	C	E	Tube
TIP42C-TN3-R	TIP42CL-TN3-R	TO-252	B	C	E	Tape Reel
TIP42C-TN3-T	TIP42CL-TN3-T	TO-252	B	C	E	Tube

<p>TIP42CL-TA3-T</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Lead Plating</p>	<p>(1) T: Tube, R: Tape Reel</p> <p>(2) TA3: TO-220, TN3: TO-252</p> <p>(3) L: Lead Free Plating Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATING

PARAMETER	SYMBOL	RATINGS	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
Collector Current (Pulse)	I_C	-10	A
Base Current	I_B	-2	A
Collector Dissipation ($T_C=25^\circ\text{C}$)	TO-220	65	W
	TO-252	20	W
Junction Temperature	T_J	+150	
Storage Temperature	T_{STG}	-65 ~ +150	

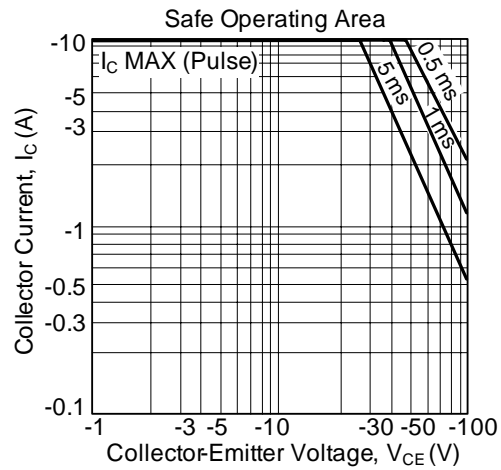
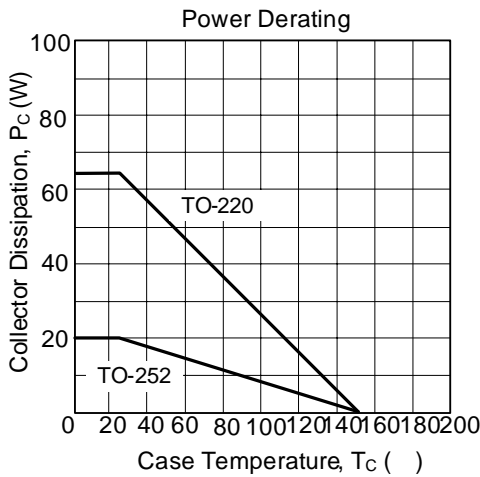
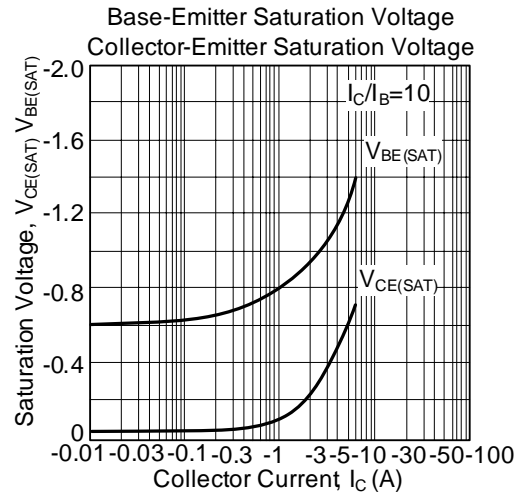
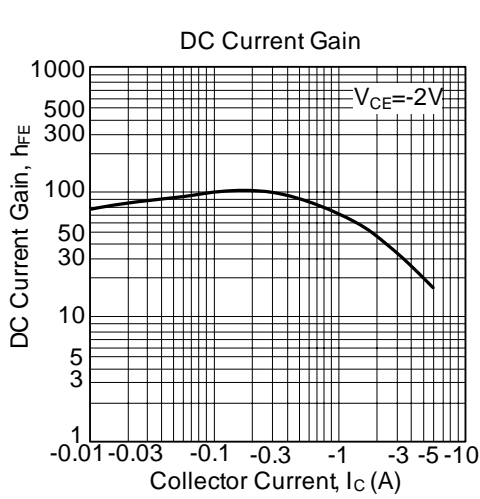
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

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

* Pulse Test: $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

■ TYPICAL CHARACTERISTICS



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