



TIP42C

PNP PLANAR TRANSISTOR

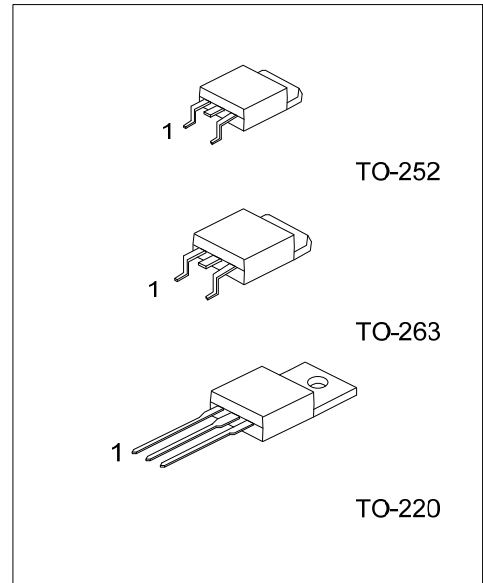
PNP EPITAXIAL PLANAR TRANSISTOR

■ DESCRIPTION

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

■ FEATURES

* Complement to TIP41C



Lead-free: TIP42CL
Halogen-free: TIP42CG

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
TIP42C-TA3-T	TIP42CL-TA3-T	TIP42CG-TA3-T	TO-220	B	C	E	Tube
TIP42C-TN3-R	TIP42CL-TN3-R	TIP42CG-TN3-R	TO-252	B	C	E	Tape Reel
TIP42C-TQ2-R	TIP42CL-TQ2-R	TIP42CG-TQ2-R	TO-263	B	C	E	Tape Reel
TIP42C-TQ2-T	TIP42CL-TQ2-T	TIP42CG-TQ2-T	TO-263	B	C	E	Tube

<p>TIP42CL-TA3-T</p> <p>(1) Packing Type (2) Package Type (3) Lead Plating</p>	<p>(1) T: Tube, R: Tape Reel (2) TA3: TO-220, TN3: TO-252, TQ2: TO-263 (3) G: Halogen Free, L: Lead Free, 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/TO-263	P_C	65	W
	TO-252		20	W
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-65 ~ +150	$^\circ\text{C}$

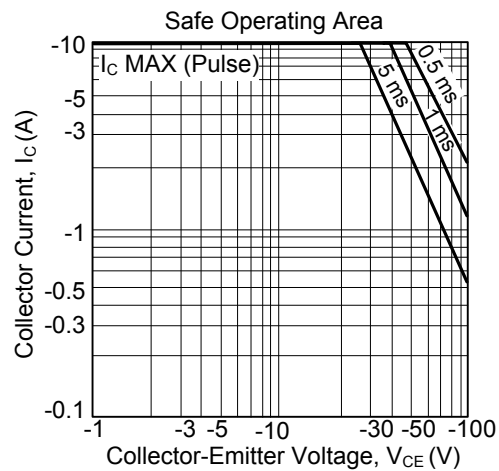
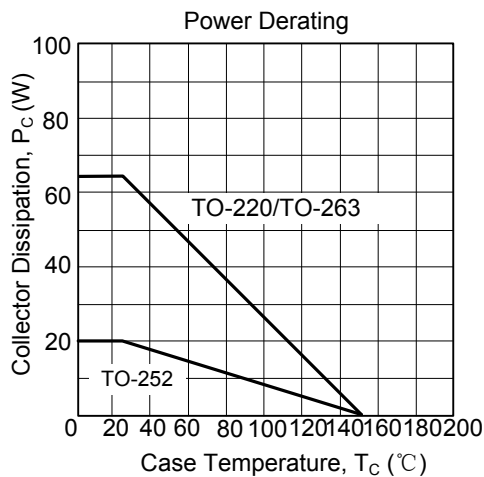
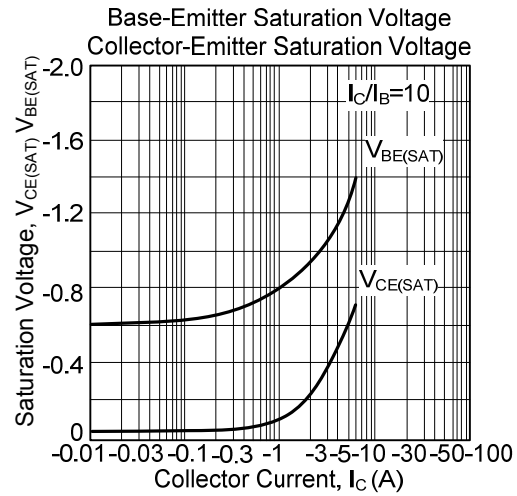
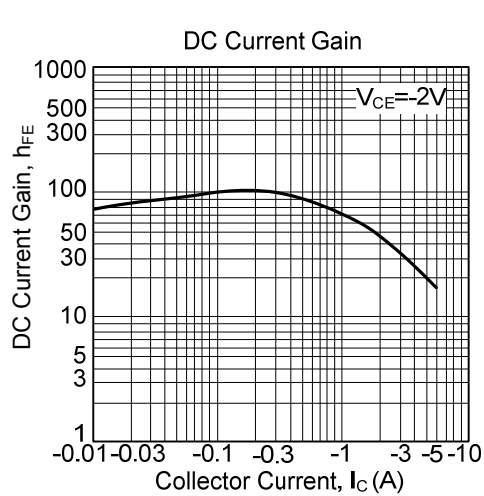
Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage (Note)	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 (Note)	$V_{CE(SAT)}$	$I_C=-6\text{A}, I_B=-600\text{mA}$			-1.5	V
Base-Emitter on Voltage (Note)	$V_{BE(ON)}$	$V_{CE}=-4\text{V}, I_C=-6\text{A}$			-2.0	V
DC Current Gain (Note)	h_{FE}	$V_{CE}=-4\text{V}, I_C=-300\text{mA}$	30			
		$V_{CE}=-4\text{V}, I_C=-3\text{A}$	15		75	
Current Gain Bandwidth Product	f_T	$V_{CE}=-10\text{V}, I_C=-500\text{mA}, f=1\text{MHz}$	3			MHz

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

TYPICAL CHARACTERISTICS



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