

# UTC TIP42C

# PNPEPITAXIAL PLANAR TRANSISTOR

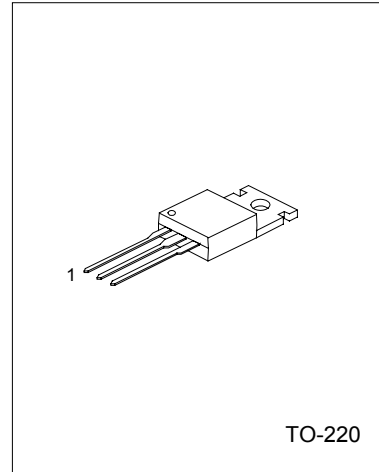
## PNP EPITAXIAL PLANAR TRANSISTOR

### DESCRIPTION

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

### FEATURE

\*Complement to tip41C



1:BASE 2:COLLECTOR 3:EMITTER

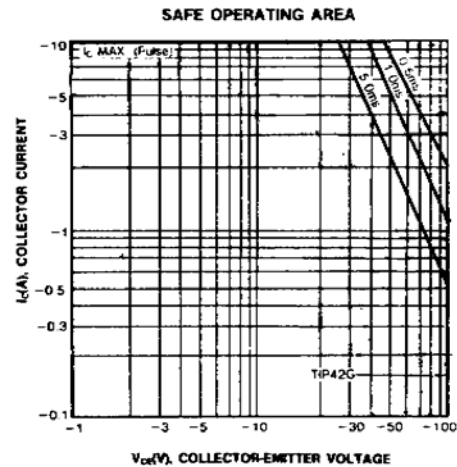
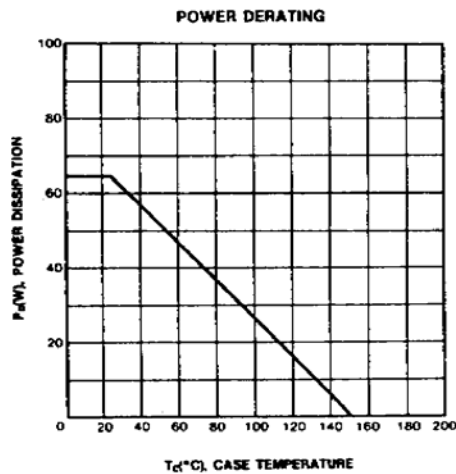
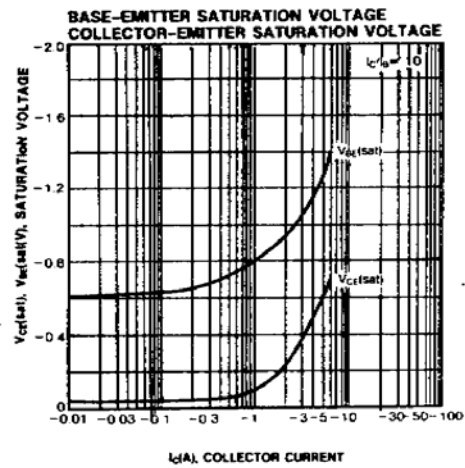
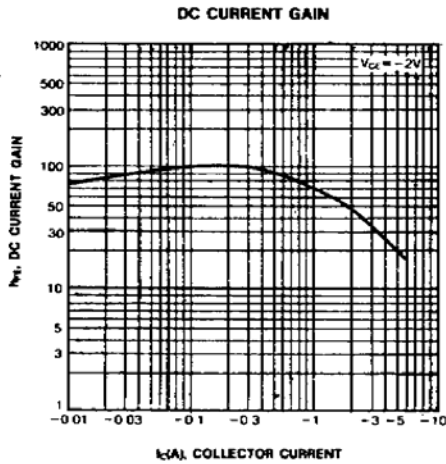
### ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Collector Base Voltage	V <sub>CBO</sub>	-100	V
Collector to Emitter Voltage	V <sub>CEO</sub>	-100	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current(DC)	I <sub>c</sub>	-6	A
Collector Current(Pulse)	I <sub>c</sub>	-10	A
Base Current	I <sub>B</sub>	-2	A
Collector Dissipation(T <sub>c</sub> =25°C)	P <sub>c</sub>	65	W
Collector Dissipation(T <sub>a</sub> =25°C)	P <sub>c</sub>	2	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-65 ~ +150	°C

### ELECTRICAL CHARACTERISTICS(T<sub>c</sub>=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining voltage(*)	BV <sub>CEO</sub>	I <sub>c</sub> =-30mA, I <sub>B</sub> =0	-100			V
Collector cutoff Current	I <sub>CEO</sub>	V <sub>CE</sub> =-60V, I <sub>B</sub> =0			-0.7	mA
Collector Cutoff Current	I <sub>CES</sub>	V <sub>CE</sub> =-100V, V <sub>EB</sub> =0			-400	μA
Emitter Cutoff current	I <sub>EBO</sub>	V <sub>BE</sub> =-5V, I <sub>c</sub> =0			-1	mA
Collector-Emitter Saturation Voltage(*)	V <sub>CE(sat)</sub>	I <sub>c</sub> =-6A, I <sub>B</sub> =-600mA			-1.5	V
Base-Emitter On Voltage(*)	V <sub>BE(on)</sub>	I <sub>c</sub> =-6A, V <sub>CE</sub> =-4V			-2.0	V
DC Current Gain(*)	h <sub>FE</sub>	I <sub>c</sub> =-300mA, V <sub>CE</sub> =-4V I <sub>c</sub> =-3A, V <sub>CE</sub> =-4V	30 15		75	
Current gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>c</sub> =-500mA, f=1MHz	3			MHz

\*Pulse Test: PW<=300μs, Duty Cycle<=2%



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