



TIP42C-Q

PNP PLANAR TRANSISTOR

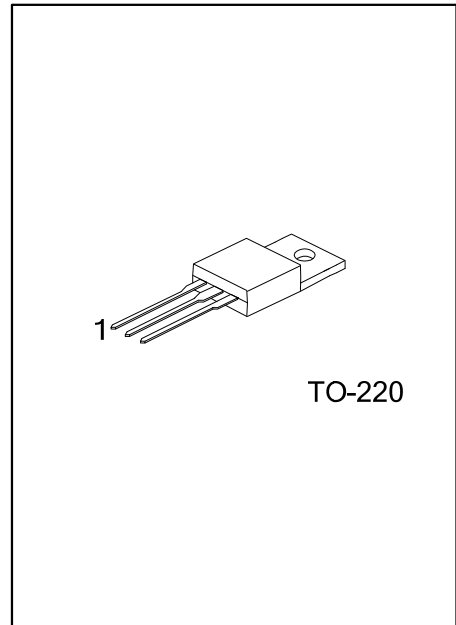
PNP EPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

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

FEATURES

* Complement to TIP41C



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TIP42CL-Q-x-TA3-T	TIP42CG-Q-x-TA3-T	TO-220	B	C	E	Tube

<p>TIP42CL-Q-x-TA3-T</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Rank</p> <p>(4) Lead Free</p>	<p>(1) T: Tube</p> <p>(2) TA3: TO-220</p> <p>(3) x: refer to Classification of h_{FE2}</p> <p>(4) L: Lead Free, G: Halogen Free</p>
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MARKING INFORMATION

PACKAGE	MARKING
TO-220	<p>UTC TIP42C □</p> <p>Lot Code ← □□□□□□ → Data Code</p> <p>1</p> <p>L: Lead Free G: Halogen Free</p>



TIP42C-Q

PNP PLANAR TRANSISTOR

■ ABSOLUTE MAXIMUM RATING (unless otherwise specified)

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 ($T_C=25^\circ\text{C}$)	P_C	65	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 ($T_C=25^\circ\text{C}$)

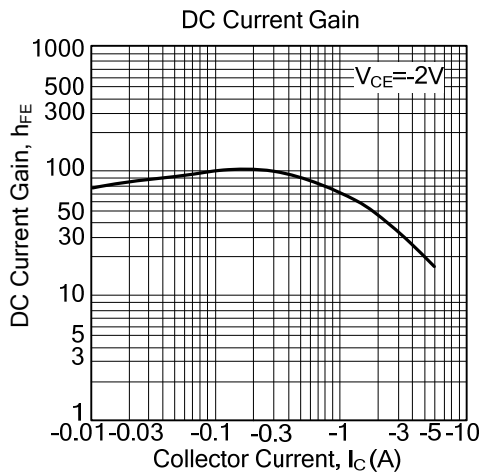
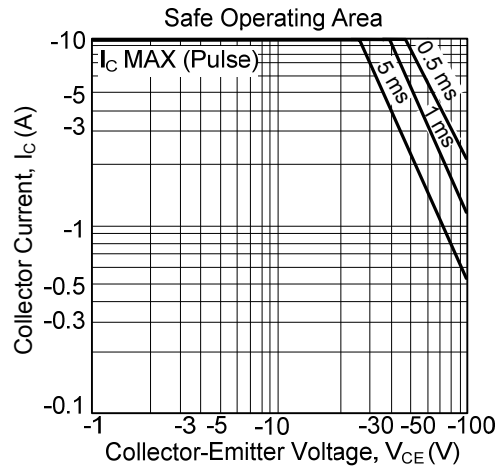
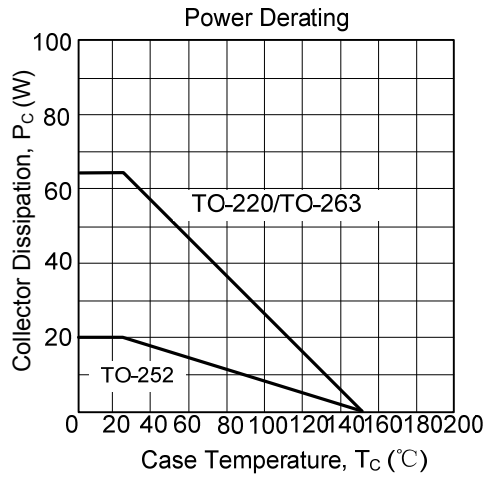
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage (Note)	BV_{CEO}	$I_C=-1\text{mA}, I_B=0$	-100			V
Collector Cutoff Current	I_{CEO}	$V_{CE}=-60\text{V}, I_B=0$			-0.7	mA
Collector Cutoff Current	I_{CES}	$V_{CE}=-100\text{V}, V_{EB}=0$			-400	μA
Emitter Cutoff Current	I_{EBO}	$V_{BE}=-5\text{V}, I_C=0$			-1	mA
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	$I_C=-6\text{A}, I_B=-600\text{mA}$			-2.2	V
Base-Emitter on Voltage (Note)	$V_{BE(ON)}$	$V_{CE}=-4\text{V}, I_C=-6\text{A}$			-2.4	V
DC Current Gain (Note)	h_{FE1}	$V_{CE}=-4\text{V}, I_C=-300\text{mA}$	30			
	h_{FE2}	$V_{CE}=-4\text{V}, I_C=-3\text{A}$	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: $P_w \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

■ CLASSIFICATION OF h_{FE2}

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

TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.