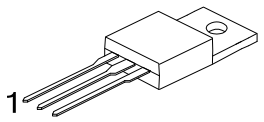
TIP42C-Q

PNP PLANAR TRANSISTOR

PNP EPITAXIAL PLANAR TRANSISTOR



TO-220

■ 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

TIP42CL-Q-x-TA3-T
(1)Packing Type
(2)Package Type
(3)Rank
(4)Lead Free

(1) T: Tube
(2) TA3: TO-220
(3) x: refer to Classification of h_{FE2}
(4) L: Lead Free, G: Halogen Free

■ MARKING INFORMATION

PACKAGE	MARKING
TO-220	UTC TIP42C □ □□□□□□□ Lot Code 1 L: Lead Free G: Halogen Free Data Code

■ 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°C)	P_C	65	W
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)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage (Note)	BV_{CEO}	I_C=-1mA, 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_{BE}=-5V, I_C=0			-1	mA
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	I_C=-6A, I_B=-600mA			-2.2	V
Base-Emitter on Voltage (Note)	$V_{BE(ON)}$	V_{CE}=-4V, I_C=-6A,			-2.4	V
DC Current Gain (Note)	h_{FE1}	V_{CE}=-4V, I_C=-300mA	30			
	h_{FE2}	V_{CE}=-4V, I_C=-3A	15		75	
Current Gain Bandwidth Product	f_T	V_{CE}=-10V, I_C=-500mA, f=1MHz	3			MHz

Note: Pulse Test: P_W≤300μs, Duty Cycle≤2%

■ CLASSIFICATION OF h_{FE2}

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

■ TYPICAL CHARACTERISTICS