

UTC TIP41C

NPNEPITAXIAL PLANAR TRANSISTOR

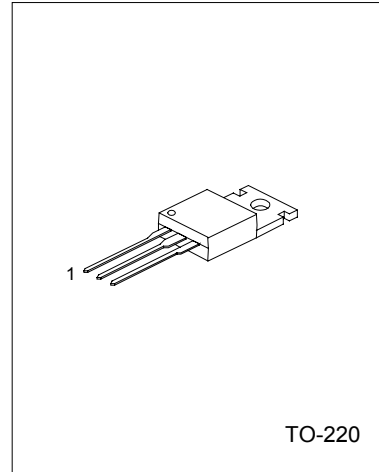
NPN EXPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

The UTC TIP41C is a NPN epitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

FEATURE

*Complement to tip42C



1:BASE 2:COLLECTOR 3:EMITTER

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CB0}	100	V
Collector to Emitter Voltage	V_{CE0}	100	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current(DC)	I_c	6	A
Collector Current(Pulse)	I_c	10	A
Base Current	I_B	2	A
Collector Dissipation($T_c=25^{\circ}C$)	P_c	65	W
Collector Dissipation($T_a=25^{\circ}C$)	P_c	2	W
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-65 ~ +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS($T_c=25^{\circ}C$)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining voltage(*)	BV_{CE0}	$I_c=30mA, I_B=0$	100			V
Collector cutoff Current	I_{CE0}	$V_{CE}=60V, I_B=0$			0.7	mA
Collector Cutoff Current	I_{CES}	$V_{CE}=100V, V_{EB}=0$			400	μA
Emitter Cutoff current	I_{EB0}	$V_{BE}=5V, I_c=0$			1	mA
Collector-Emitter Saturation Voltage(*)	$V_{CE(sat)}$	$I_c=6A, I_B=600mA$			1.5	V
Base-Emitter On Voltage(*)	$V_{BE(on)}$	$I_c=6A, V_{CE}=4V$			2.0	V
DC Current Gain(*)	h_{FE}	$I_c=300mA, V_{CE}=4V$ $I_c=3A, V_{CE}=4V$	30 15		75	
Current gain Bandwidth Product	f_T	$V_{CE}=10V, I_c=500mA,$ $f=1MHz$	3			MHz

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

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