

UTC TIP41C

NPNEPITAXIAL PLANAR TRANSISTOR

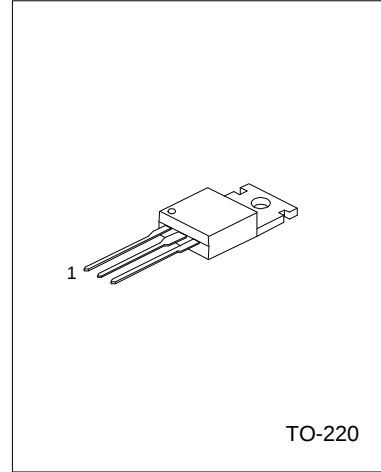
NPN EXPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

The UTC TIP41C is a NPN expitaxial 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($T_c=25^{\circ}\text{C}$)	P_c	65	W
Collector Dissipation($T_a=25^{\circ}\text{C}$)	P_c	2	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-65 ~ +150	$^{\circ}\text{C}$

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

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

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

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