

UTC TIP31C NPN EXPITAXIAL PLANAR TRANSISTOR

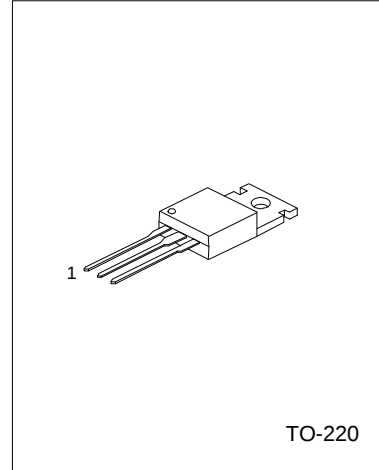
NPN EXPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

The UTC TIP31C is a NPN expitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

FEATURE

*Complement to tip32C



1:BASE 2:COLLECTOR 3:EMITTER

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter To Base Voltage	V_{EBO}	5	V
Collector Current(DC)	I_C	3	A
Collector Current(Pulse)	I_C	5	A
Base Current	I_B	1	A
Collector Dissipation($T_c=25^{\circ}C$)	P_C	40	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($T_c=25^{\circ}C$)

PARAMATER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining Voltage(*)	BV_{CEO}	$I_C=30mA, I_B=0$	100			V
Collect Cutoff Current	I_{CES}	$V_{CB}=100V, V_{EB}=0$			200	μA
Collector Cutoff Current	I_{CEO}	$V_{CE}=60V, I_B=0$			0.3	mA
Emitter Cutoff Current	I_{EBO}	$V_{BE}=5V, I_C=0$			1	mA
Collector-Emitter Saturation Voltage(*)	$V_{CE(sat)}$	$I_C=3A, I_B=375mA$			1.2	V
Base-Emitter On Voltage(*)	$V_{BE(on)}$	$I_C=3A, V_{CE}=4V$			1.8	V
DC Current Gain(*)	h_{FE}	$I_C=1A, V_{CE}=4V$	25			
		$I_C=3A, V_{CE}=4V$	10		50	
Current Gain Bandwidth Product	f_T	$I_C=0.5A, V_{CE}=10V$ $f=1MHz$	3			MHz

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

