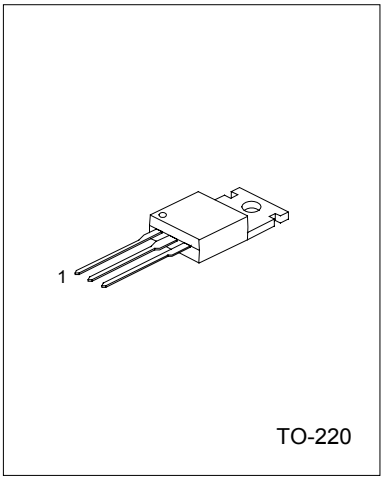
PNP EPITAXIAL PLANAR TRANSISTOR



TO-220

1:BASE 2:COLLECTOR 3:EMITTER

DESCRIPTION

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

FEATURE

*Complement to tip41C

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	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)	Ic	-6	A
Collector Current(Pulse)	Ic	-10	A
Base Current	I_B	-2	A
Collector Dissipation(Tc=25°C)	Pc	65	W
Collector Dissipation(Ta=25°C)	Pc	2	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-65 ~ +150	°C

ELECTRICAL CHARACTERISTICS(Tc=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Sustaining voltage(*)	BV_{CEO}	I_C=-30mA,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,Ic=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	fT	VCE=-10V,Ic=-500mA, f=1MHz	3			MHz

*Pulse Test: PW<=300μs, Duty Cycle<=2%