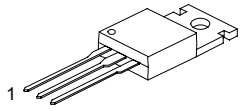
PNP EPITAXIAL TRANSISTOR

DESCRIPTION

The UTC TIP107 is designed for using in general purpose amplifier and switching applications.

FEATURE

*Low VCE(sat)
*High current gain
*Complementary to TIP102



TO-220

1:BASE 2:COLLECTOR 3:EMITTER

Absolute Maximum Ratings(T_C=25℃)

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-100	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-8	A
Collector Current (Pulse)	I_{CP}	-15	A
Base Current (DC)	I_B	-1	A
Collector Dissipation	Pc	80	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	- 65~150	℃

Electrical Characteristics(T_C=25℃)

Parameter	Symbol	TEST CONDITIONS	MIN.	MAX.	UNIT
Collector-Emitter Sustaining Voltage	V_{CEO}(SUS)	I_C = -30mA, I_B = 0	-100		V
Collector Cut-off Current	I_{CEO}	V_{CE}= - 50V, I_B=0		50	μA
Collector Cut-off Current	I_{CBO}	V_{CB}= - 100V, I_E=0		-50	μA
Emitter Cut-off Current	I_{EBO}	V_{BE}= - 5V, I_C=0		-2	mA
DC Current Gain	h_{FE}	V_{CE}= - 4V, I_C= - 3A V_{CE}= - 4V, I_C= - 8A	1000 200	20000	
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C= - 3A, I_B= - 6mA I_C= - 8A, I_B= - 80mA		-2 -2.5	V V
Base-Emitter ON Voltage	V_{BE} (on)	V_{CE}= - 4V, I_C= - 8A		-2.8	V
Output Capacitance	C_{Ob}	V_{CB}= -10V, I_E=0, f=0.1MHZ		300	pF

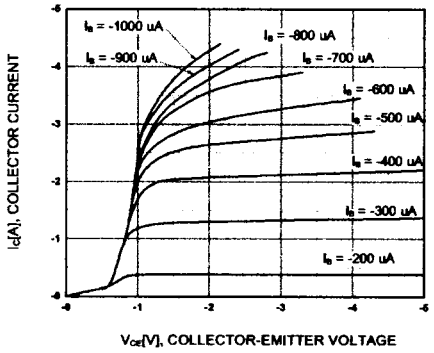


Figure 1. Static Characteristic

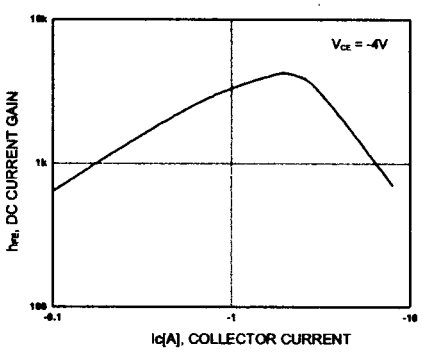


Figure 2. DC current Gain

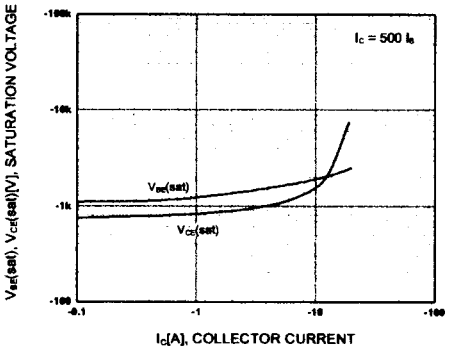


Figure 3. Collector-Emitter Saturation Voltage Base-Emitter Saturation Voltage

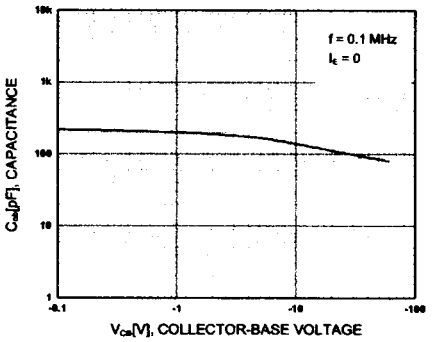


Figure 4. Collector Output Capacitance

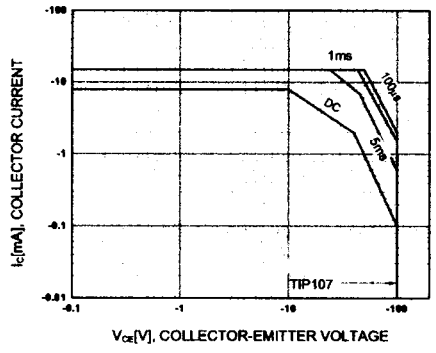


Figure 5. Safe Operating Area

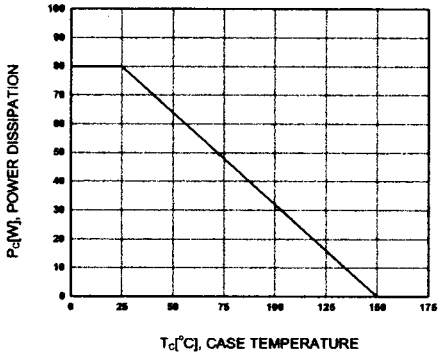


Figure 6. Power Derating