TIP42CF TRANSISTOR (PNP)

1.BASE
2.COLLECTOR
3.EMITTER

TO-220F

FEATURES

- Large current capacitance
- Complementary NPN Types:TIP41CF

APPLICATIONS

- Medium power linear switching applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

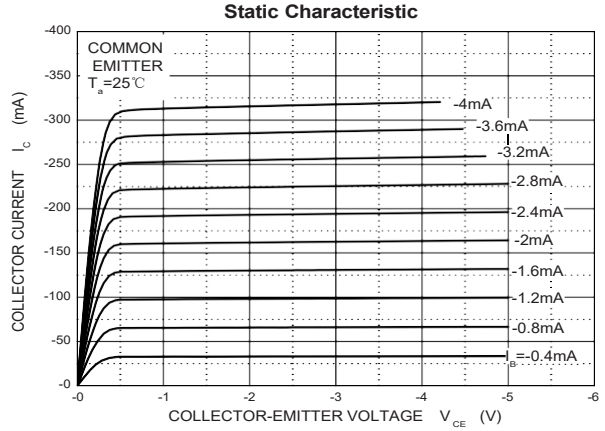
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-100	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-6	A
Collector Power Dissipation	P_C	2	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	62.5	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

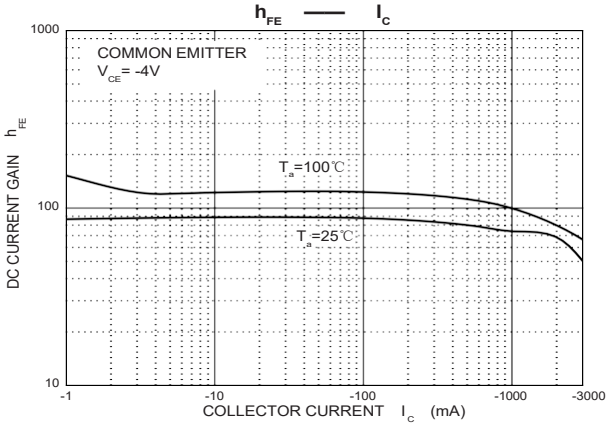
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-1mA,I_E=0	-100			V
Collector-emitter Sustaining voltage	$V_{CEO(SUS)}$*	I_C=-30mA,I_B=0	-100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-1mA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-100V,I_E=0			-400	μA
Collector cut-off current	I_{CEO}	V_{CE}=-60V,I_B=0			-700	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-1	mA
DC current gain	$h_{FE(1)}$	V_{CE}=-4V, I_C=-0.3A	30			
	$h_{FE(2)}$	V_{CE}=-4V, I_C=-3A	15		75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-6A,I_B=-0.6A			-1.5	V
Base-emitter voltage	V_{BE}	V_{CE}=-4V, I_C=-6A			-2	V
Transition frequency	f_T	V_{CE}=-10V,I_C=-0.5A	3			MHz

Notes: Pulse Test : Pulse Width≤300μs, duty cycle ≤2%.

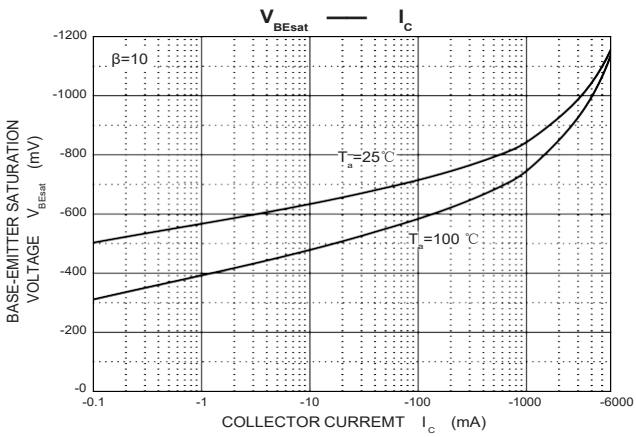
Static Characteristic



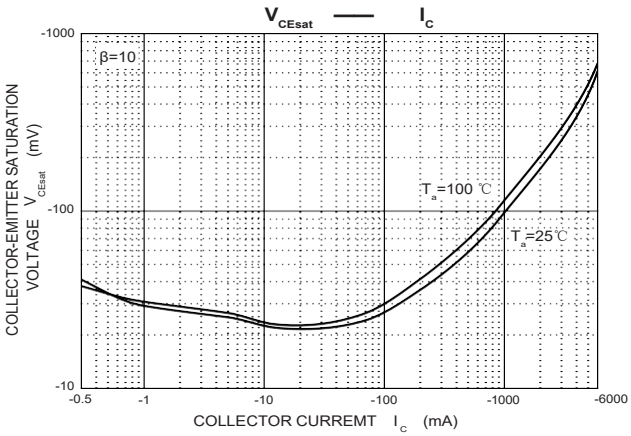
h_{FE} —— I_C



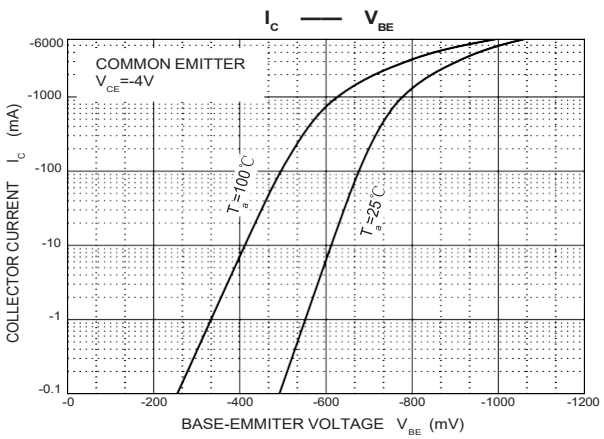
V_{BEsat} —— I_C



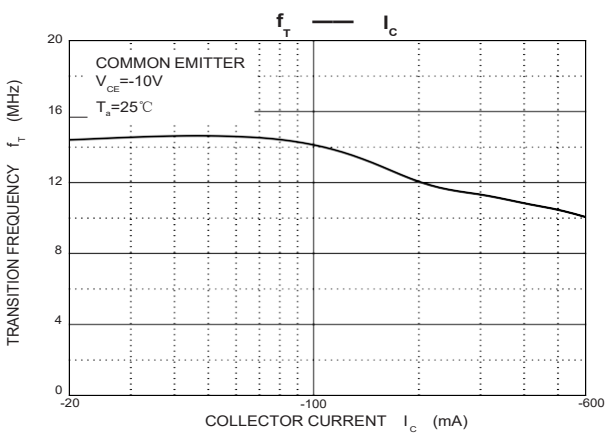
V_{CEsat} —— I_C



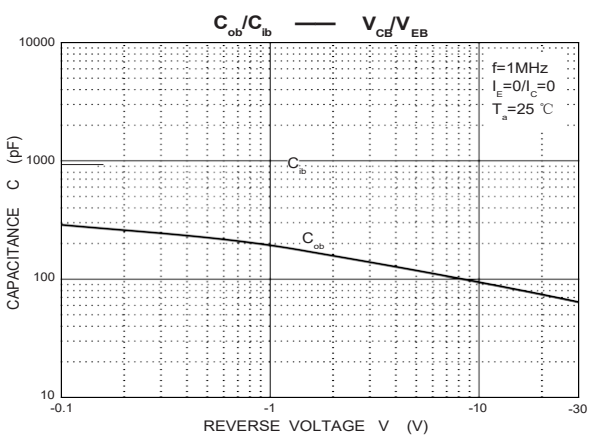
I_C —— V_{BE}



f_T —— I_C



C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a