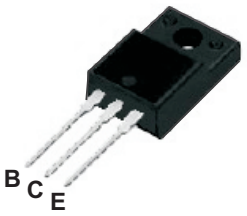
High Frequency NPN Power Transistor
1A/230V/20W

FEATURES

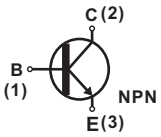
- High transition frequency: f_T = 100MHz (typ.)
- Complementary to 2SA1837AF
- TO-220F package which can be installed to the heat sink with one screw

APPLICATIONS

- Power amplifier
- Driver stage amplifier



TO-220F
(2SC4793AF)



ABSOLUTE MAXIMUM RATINGS (T_C = 25°C unless otherwise specified)

SYMBOL	PARAMETER	TEST CONDITIONS	VALUE	UNIT
V_{CBO}	Collector to base voltage		230	V
V_{CEO}	Collector to emitter voltage	I_B=0	230	
V_{EBO}	Emitter to base voltage	I_C=0	5	
I_C	Collector current-continuous		1	A
I_{CM} (I_{cp})	Peak collector current	t_p<5 ms	2	
I_B	Base Current		0.1	
P_C	Collector power dissipation	T_C=25°C	20	W
		T_a=25°C	2.0	
T_J	Junction temperature		150	°C
T_{STG}	Storage temperature		-55 to 150	

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise specified)

SYMBOL	PARAMETER	TEST CONDITIONS		Min.	Typ.	Max.	UNIT
I_{CBO}	Collector cutoff current	V_{CBO}=230V, I_E=0	T_C=25°C			1.0	μA
			T_C=125°C			100	
I_{EBO}	Emitter cutoff current	V_{EBO}=5V, I_C=0				1.0	
$V_{(BR)CEO}$	Collector to emitter breakdown voltage	I_B=0, I_c=100mA		230			V
$V_{CE(sat)}$*	Collector to emitter saturation voltage	I_C=0.5A, I_B=50mA				1.5	
V_{BE}	Base to emitter voltage	I_C=0.5A, V_{CE}=5V				1.0	
h_{FE}*	Forward current transfer ratio (DC current gain)	I_C=0.1A, V_{CE}=5V		100		320	
F_T	Transition frequeucy	V_{CE}=10V, I_C=100mA			100		MHz
C_{ob}	Collector output capacitance	V_{CB}=10V, I_E=0, f=1MHz			20		pF

*Pulsed: Pulse duration= 300μs, duty cycle= 1.5%.

Fig.1 I_C-V_{CE} Characteristics

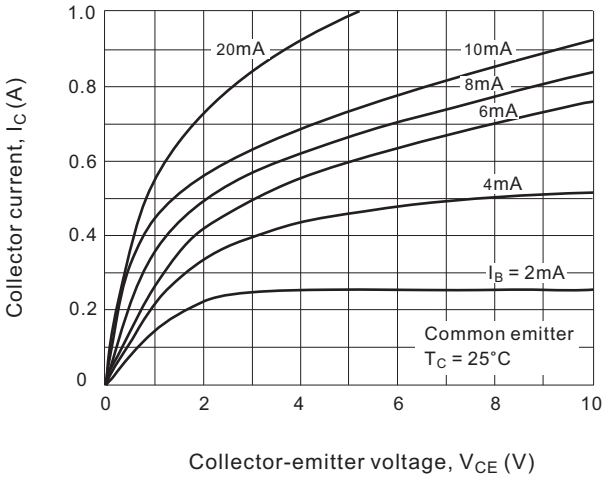


Fig.2 I_C-V_{BE} Temperature characteristics

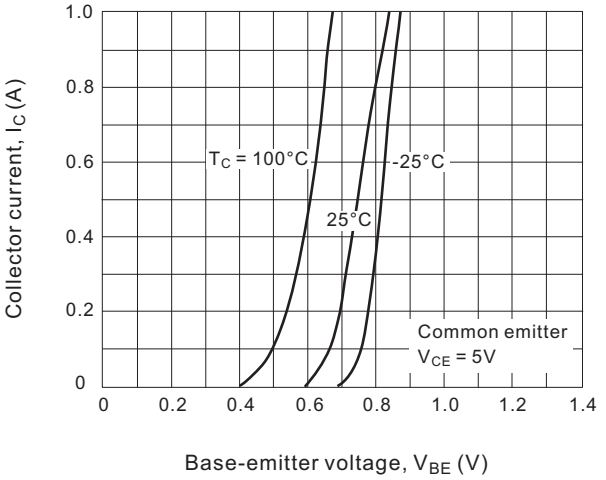


Fig.3 h_{FE}-I_C Characteristics

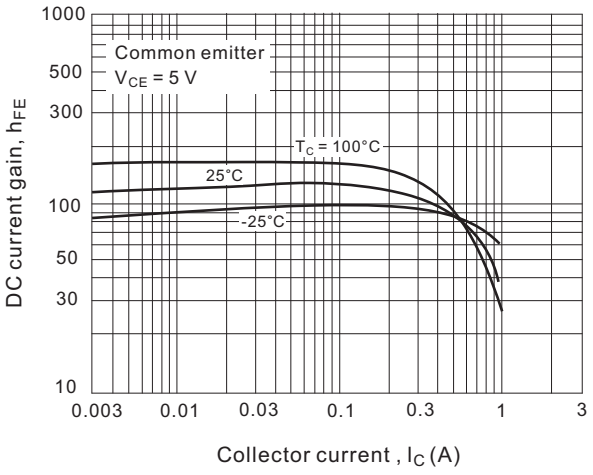


Fig.4 $V_{CE\ (sat)}$ - I_C Temperature characteristics

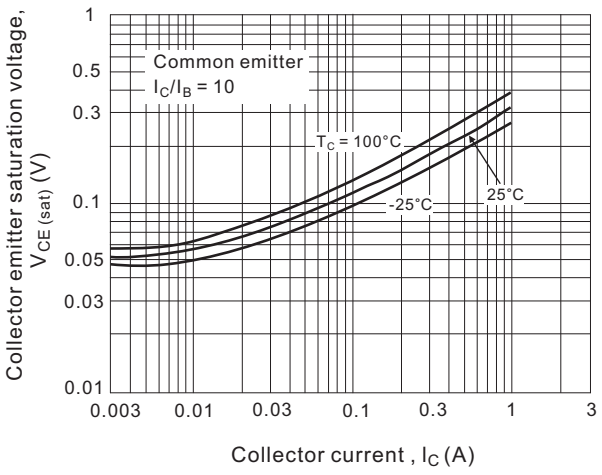


Fig.5 f_T-I_C Characteristics

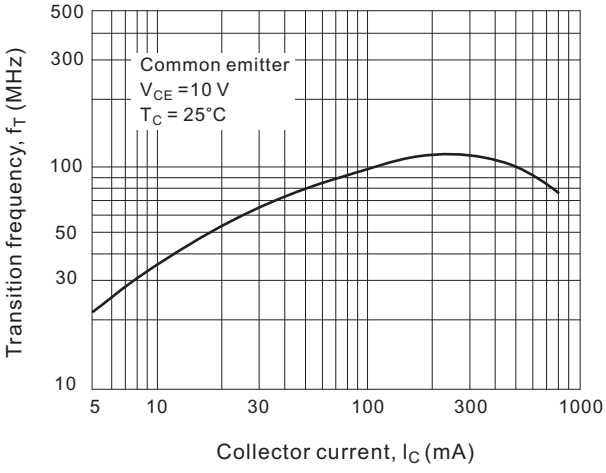
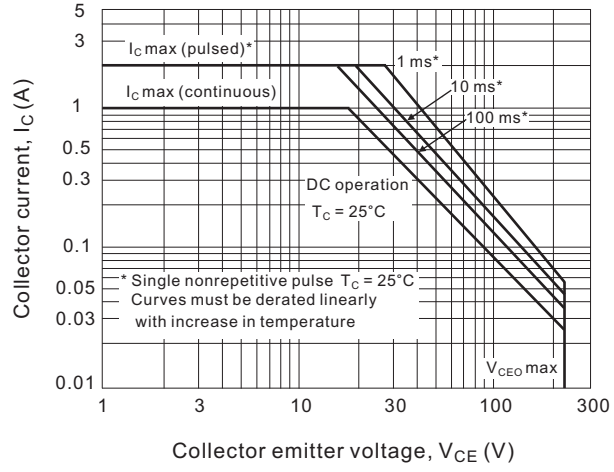
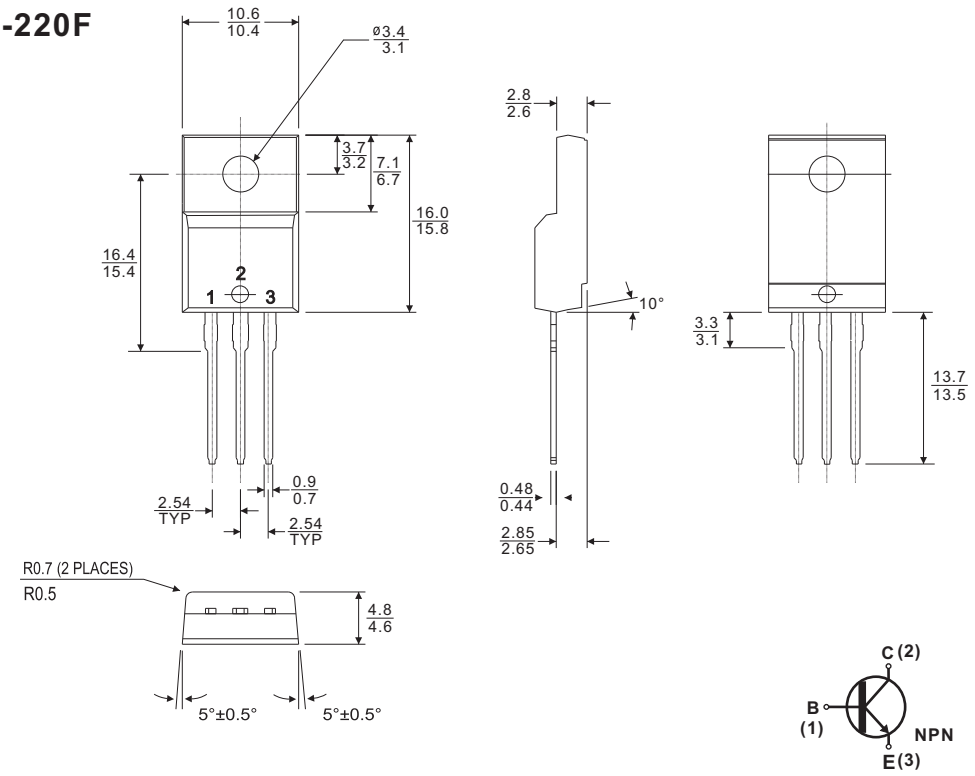


Fig.6 Safe operating area (SOA)



Case Style

TO-220F



All dimensions in millimeters