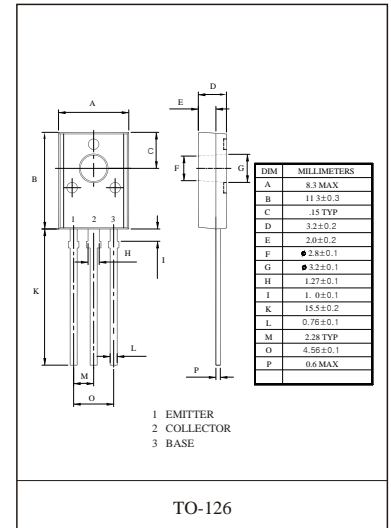


FTA1220/1220A TRANSISTOR (PNP)

FEATURES

- Audio frequency power amplifier
- High frequency power amplifier
- Complement to FTC2690/FTC2690A



MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Units	
V _{CBO}	Collector-Base Voltage	FTA1220	-120	V
		FTA1220A	-160	V
V _{CEO}	Collector-Emitter Voltage	FTA1220	-120	V
		FTA1220A	-160	V
V _{EBO}	Emitter-Base Voltage	-5	V	
I _C	Collector Current (DC)	-1.2	A	
I _{CP}	Collector Current (PW ≤10ms,Duty Cycle ≤2 %)	-2.5	A	
I _B	Base Current	-0.3	A	
P _C	Collector Power Dissipation (T _a = 25 °C)	1.25	W	
	Collector Power Dissipation (T _c = 25 °C)	20	W	
T _J	Junction Temperature	150	°C	
T _{stg}	Storage Temperature	-55-150	°C	

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector cut-off current	I _{CBO}	V _{CB} =-120V, I _E =0			-1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-3 V, I _C =0			-1	μA
DC current gain	h _{FE(1)}	V _{CE} =-5V, I _C =-5mA	35			
	h _{FE(2)}	V _{CE} =-5V, I _C =-300mA	60		320	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-1 A, I _B =-200mA ⁽¹⁾		-0.4	-0.7	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-1 A, I _B =-200mA ⁽¹⁾		-1	-1.3	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-200mA		175		MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		26		pF

⁽¹⁾ Pulse Test : PW≤350us , Duty Cycle ≤ 2 %

CLASSIFICATION OF h_{FE(2)}

Rank	R	O	Y
Range	60-120	100-200	160-320

● Electrical characteristic curves

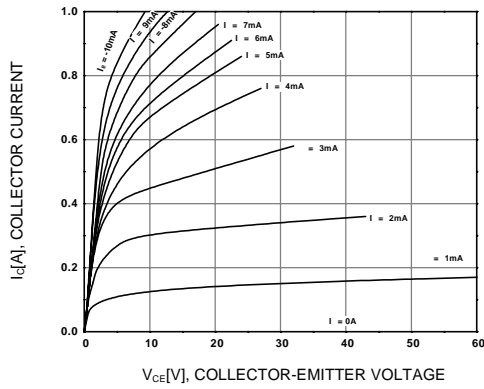


Figure 1. Static Characteristic

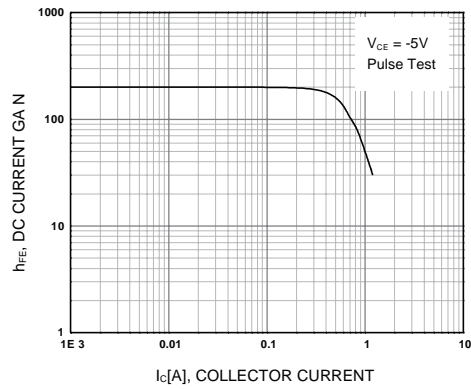


Figure 2. DC current Gain

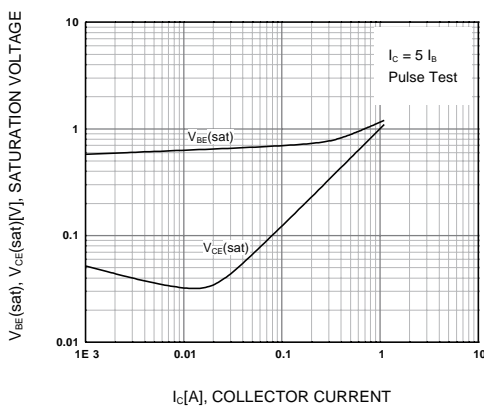


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

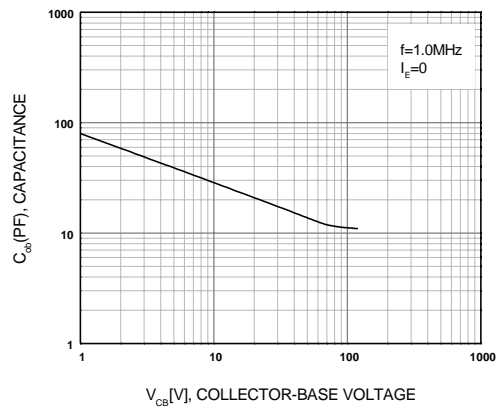


Figure 4. Collector Output Capacitance

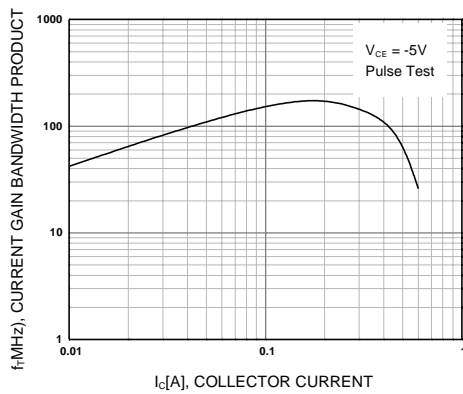


Figure 5. Current Gain Bandwidth Product

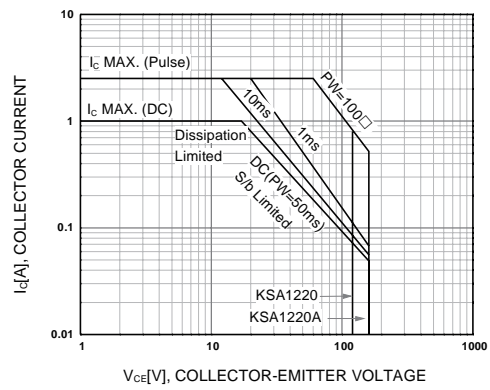


Figure 6. Safe Operating Area

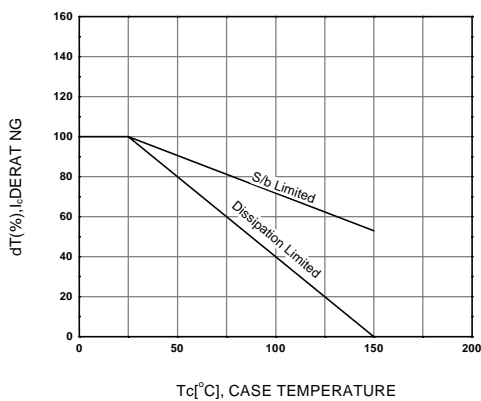


Figure 7. Derating Curve of Safe Operating Areas

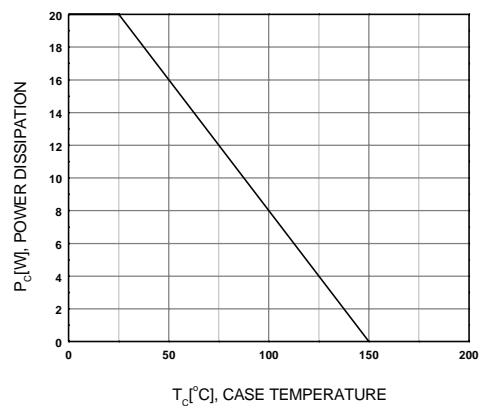


Figure 8. Power Derating