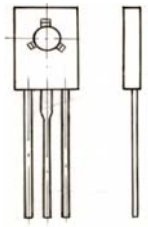
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-126 Plastic-Encapsulate Transistors

KSA1220/1220A TRANSISTOR (PNP)

TO-126



1. EMITTER
2. COLLECTOR
3. BASE

1 2 3

FEATURES

- **Audio frequency power amplifier**
- **High frequency power amplifier**
- **Complement to KSC2690/KSC2690A**

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter		Value	Units
V_{CBO}	Collector-Base Voltage	KSA1220	-120	V
		KSA1220A	-160	V
V_{CEO}	Collector-Emitter Voltage	KSA1220	-120	V
		KSA1220A	-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 ℃)		1.25	W
	Collector Power Dissipation (T_c = 25 ℃)		20	W
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ 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

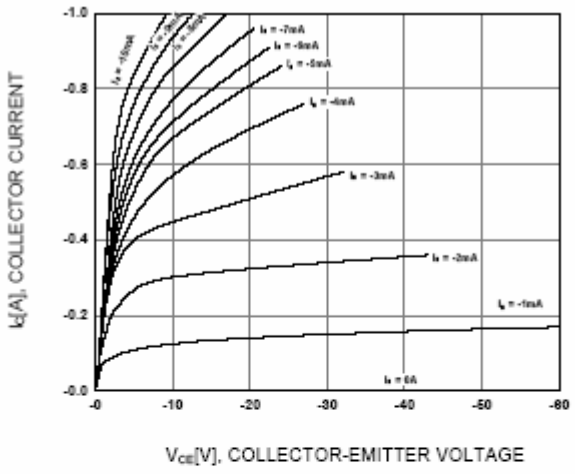


Figure 1. Static Characteristic

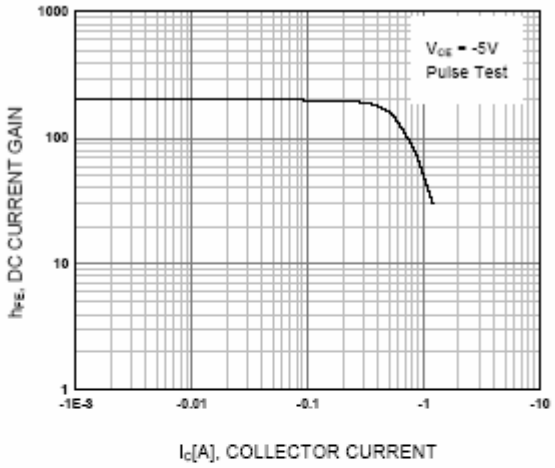


Figure 2. DC current Gain

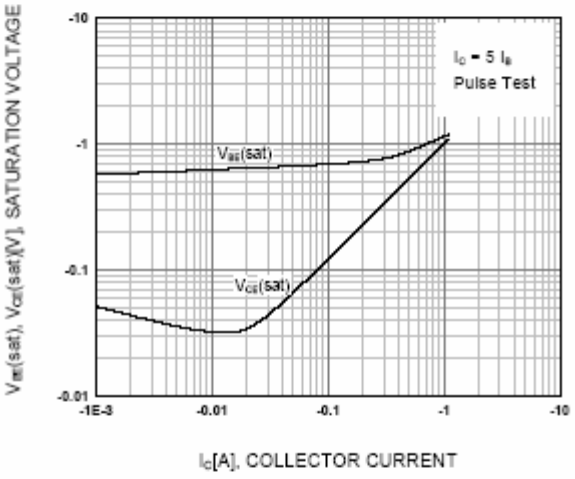


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

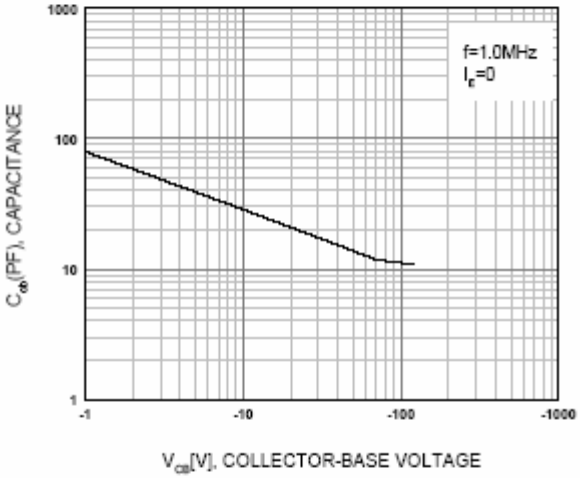


Figure 4. Collector Output Capacitance

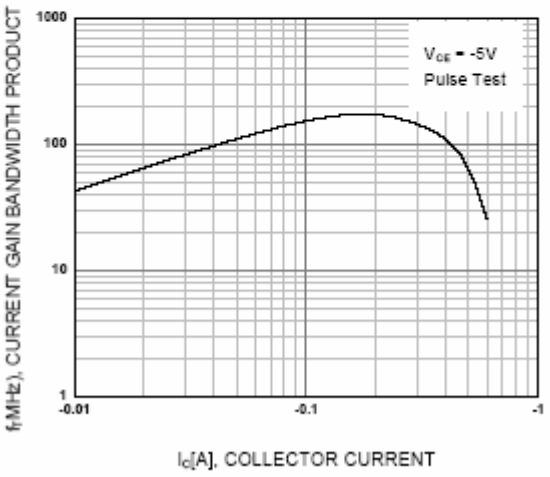


Figure 5. Current Gain Bandwidth Product

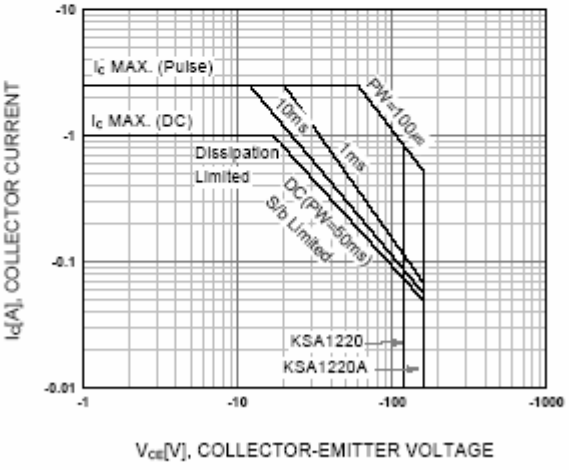


Figure 6. Safe Operating Area