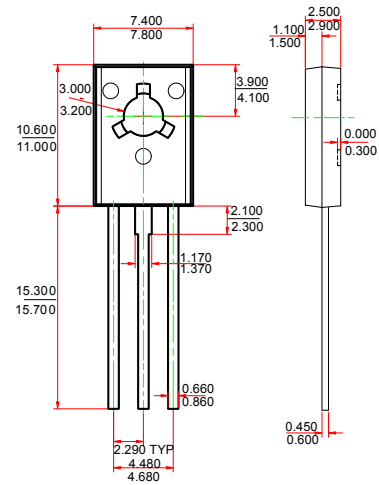


1. EMITTER
2. COLLECTOR
3. BASE



Features

- ✧ Audio frequency power amplifier
- ✧ High frequency power amplifier
- ✧ Complement to KSA1220/KSA1220A

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

Dimensions in inches and (millimeters)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	KSA2690	120
		KSA2690A	160
V _{CEO}	Collector-Emitter Voltage	KSA2690	120
		KSA2690A	160
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 _{CB0}	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	105		
	h _{FE(2)}	V _{CE} =5V, I _C =300mA	60	140	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		155		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		19		pF

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

CLASSIFICATION OF h_{FE(2)}

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

Typical Characteristics

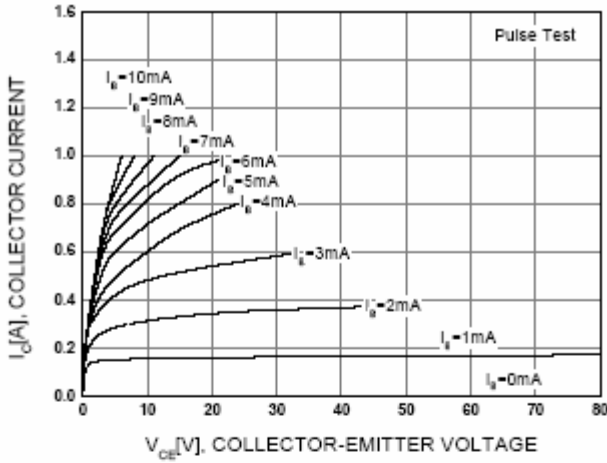


Figure 1. Static Characteristic

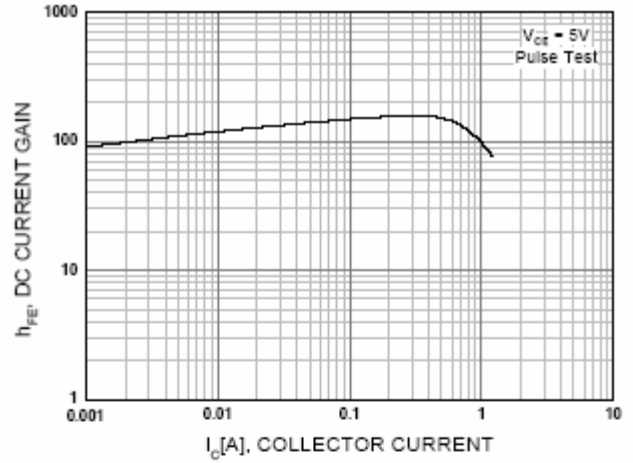


Figure 2. DC current Gain

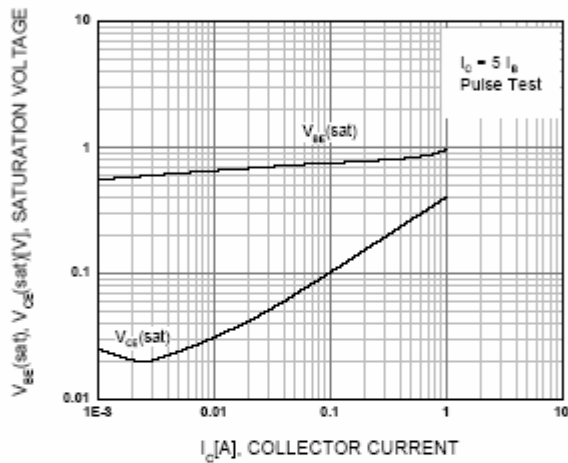
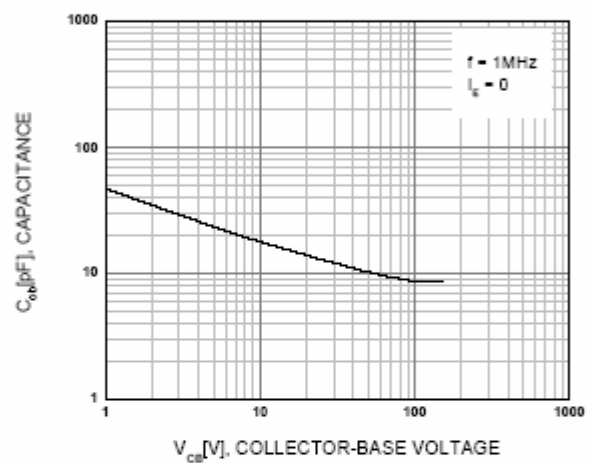

 Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage


Figure 4. Collector Output Capacitance

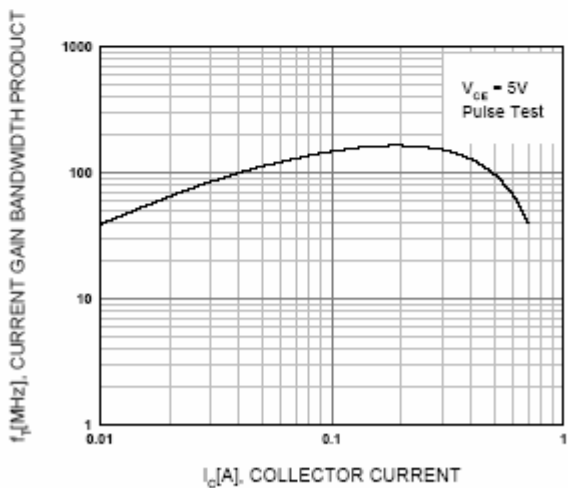


Figure 5. Current Gain Bandwidth Product

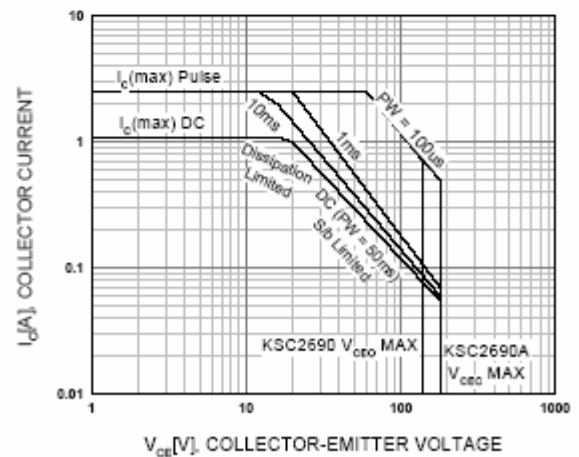


Figure 6. Safe Operating Area