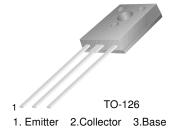


KSC2690/2690A

Audio Frequency High Frequency Power Amplifier • Complement to KSA1220/KSA1220A



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage		
	: KSC2690	120	V
	: KSC2690A	160	V
V _{CEO}	Collector- Emitter Voltage		
	: KSC2690	120	V
	: KSC2690A	160	V
V _{EBO}	Emitter-Base Voltage	5	V
Ic	Collector Current (DC)	1.2	Α
I _{CP}	*Collector Current (Pulse)	2.5	Α
I _B	Base Current(DC)	0.3	Α
P _C	Collector Dissipation (T _a =25°C)	1.2	W
P _C	Collector Dissipation (T _C =25°C)	20	W
TJ	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 55 ~ 150	°C

^{*} PW≤10ms, Duty Cycle≤50%

Electrical Characteristics T_C=25°C unless otherwise noted

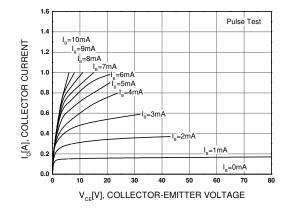
Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
I _{CBO}	Collector Cut-off Current	$V_{CB} = 120V, I_{E} = 0$			1	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = 3V, I_{C} = 0$			1	μΑ
h _{FE1}	* DC Current Gain	$V_{CE} = 5V$, $I_C = 5mA$	35	105		
h_{FE2}		$V_{CE} = 5V, I_{C} = 0.3A$	60	140	320	
V _{CE} (sat)	* Collector-Emitter Saturation Voltage	$I_C = 1A, I_B = 0.2A$		0.4	0.7	V
V _{BE} (sat)	* Base-Emitter Saturation Voltage	$I_C = 1A, I_B = 0.2A$		1	1.3	V
f _T	Current Gain Bandwidth Product	$V_{CE} = 5V, I_{C} = 0.2A$		155		MHz
C _{ob}	Output Capacitance	V _{CB} =10V, I _E =0, f = 1MHz		19		pF

^{*} Pulse Test: PW≤350μs, Duty Cycle≤2% Pulsed

h_{FE} Classificntion

Classification	R	0	Υ
h _{FE2}	60 ~ 120	100 ~ 200	160 ~ 320

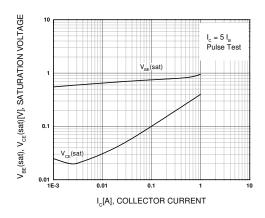
Typical Characteristics



V_{CE} = 5V Pulse Test

Figure 1. Static Characteristic

Figure 2. DC current Gain



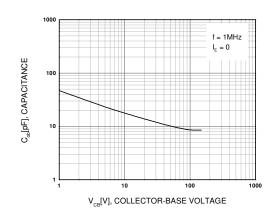
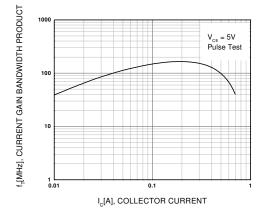


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

Figure 4. Collector Output Capacitance



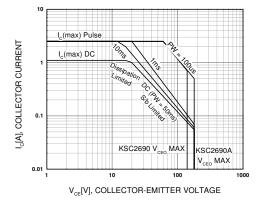
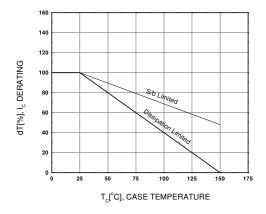


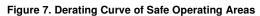
Figure 5. Current Gain Bandwidth Product

Figure 6. Safe Operating Area

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Typical Characteristics (Continued)





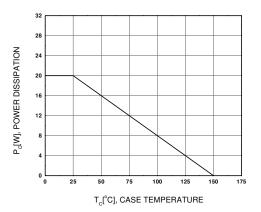
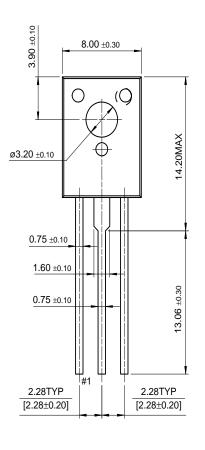
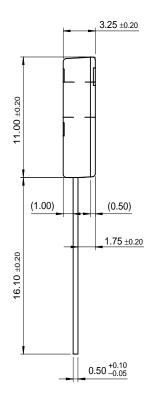


Figure 8. Power Derating

TO-126





Dimensions in Millimeters

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