

KSB744/744A

Audio Frequency Power Amplifier

Complement to KSD794/KSD794A



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^{\circ}C$ unless otherwise noted

Symbol	Parameter		Value	Units
V_{CBO}	Collector-Base Voltage		-70	V
V _{CEO}	Collector-Emitter Voltage	: KSB744 : KSB744A	-45 -60	V V
V _{EBO}	Emitter-Base Voltage		-5	V
I _C	Collector Current (DC)		-3	А
I _{CP}	*Collector Current (Pulse)		-5	Α
I _B	Base Current		-0.6	А
P _C	Collector Dissipation (T _a =25°C)		1	W
P _C	Collector Dissipation (T _C =25°C)		10	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	$V_{CB} = -45V, I_{E} = 0$			-1	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = -3V, I_{C} = 0$			-1	μΑ
h _{FE1}	* DC Current Gain	$V_{CE} = -5V, I_{C} = -20mA$	30	120		
h _{FE2}		$V_{CE} = -5V, I_{C} = -0.5A$	60	100	320	
V _{CE} (sat)	* Collector-Emitter Saturation Voltage	$I_C = -1.5A, I_C = -0.15A$		-0.5	-2	V
V _{BE} (sat)	* Base-Emitter Saturation Voltage	$I_C = -1.5A, I_B = -0.15A$		-0.8	-2	V
f _T	Current Gain Bandwidth Product	$V_{CE} = -5V, I_{C} = -0.1A$		45		MHz
C _{ob}	Output Capacitance	$V_{CB} = -10V, I_{E} = 0$ f = 1MHz		60		pF

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

h_{FE} Cassification

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

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Typical Characteristics

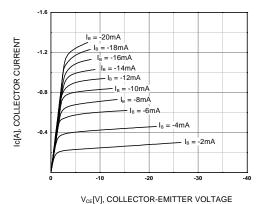


Figure 1. Static Characteristic

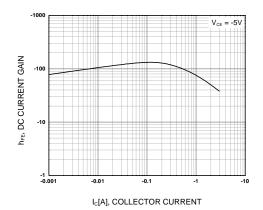


Figure 2. DC current Gain

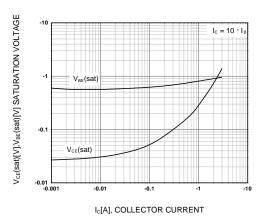


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

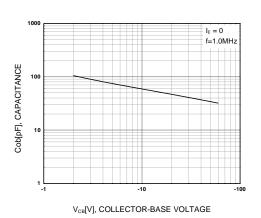


Figure 4. Collector Output Capacitance

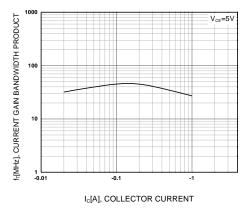


Figure 5. Current Gain Bandwidth Product

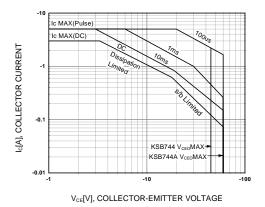


Figure 6. Safe Operating Area

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Typical Characteristics (Continued)

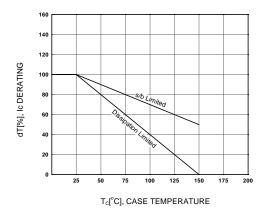


Figure 7. Derating Curve of Safe Operating Areas

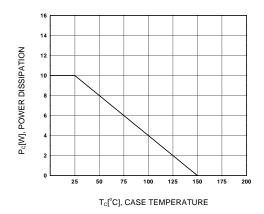
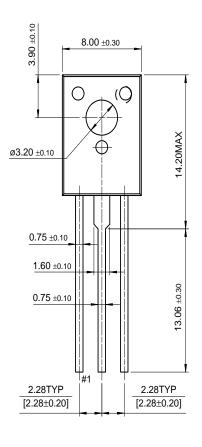
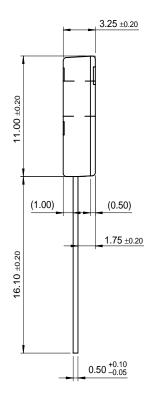


Figure 8. Power Derating

Package Demensions

TO-126







Dimensions in Millimeters

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