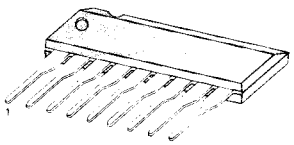
0.5W AUDIO POWER AMPLIFIER

The KA2212 is a monolithic integrated audio power amplifier in a 9-pin plastic single in line package, designed for audio frequency class B amplifiers.

9 SIP



FEATURES

- **Suitable for portable radios, cassette tape recorders.**
- **Medium output power.**
  P_O=0.5W (Typ) at V_{CC}=6V, R_L=8Ω, THD=10%.
- **Wide operating supply voltage range: V_{CC}=3.5V ~ 12V**
- **Low quiescent circuit current.**
- **Excellent thermal stability.**

ORDERING INFORMATION

Device	Package	Operating Temperature
KA2212	9 SIP	-20°C ~ +70°C

BLOCK DIAGRAM

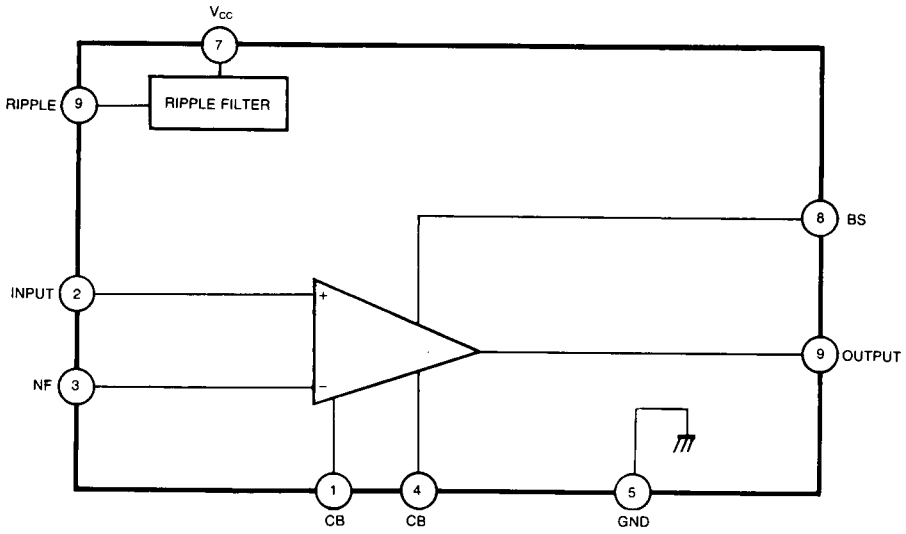


Fig. 1

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	14	V
Power Dissipation	P_D	750	mW
Operating Temperature	T_{OPR}	−20 ~ +70	°C
Storage Temperature	T_{STG}	−40 ~ +150	°C

ELECTRICAL CHARACTERISTICS

(Ta = 25°C, V_{CC} = 6V, R_L = 8Ω, R_G = 600Ω, R_F = 68Ω, f = 1KHz, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	I_{CCQ}	V_i = 0		14		mA
Open Loop Voltage Gain	G_{VO}	R_F = 0Ω	60	75		dB
Closed Loop Voltage Gain	G_{VC}	R_F = 68Ω	47	50	52	dB
Output Power	P_O	THD=10%	0.45	0.5		W
Total Harmonic Distortion	THD	P_O = 100mW		0.3	1.0	%
Input Resistance	R_I			15		KΩ
Output Noise Voltage	V_{NO}	R_G = 10KΩ BW (−3dB)=50Hz ~ 20KHz		0.4	1.0	mV

TEST CIRCUIT

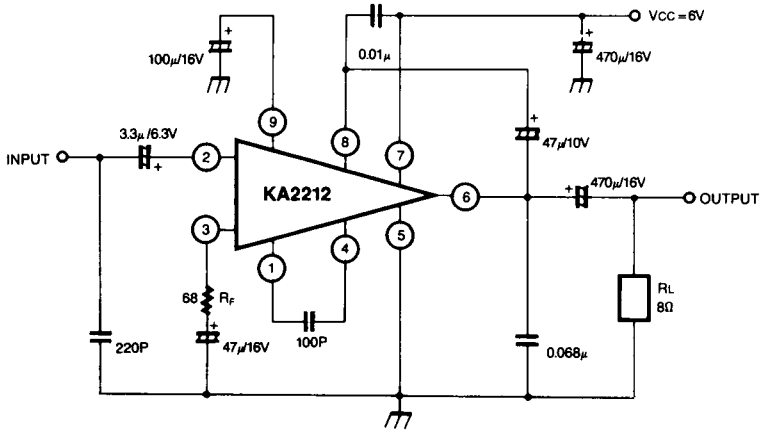
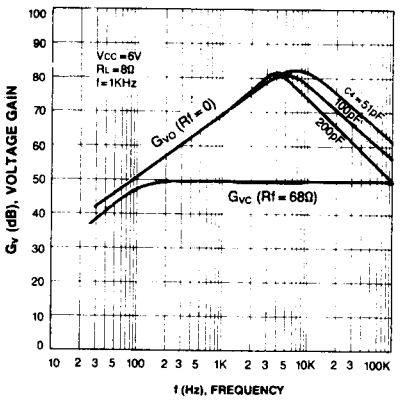
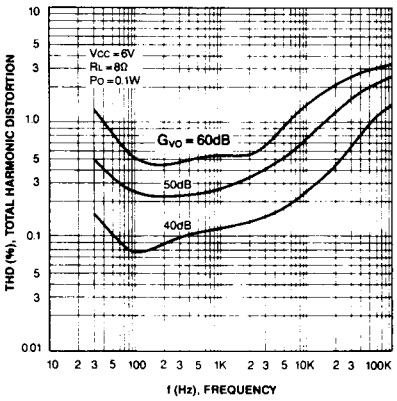


Fig. 2

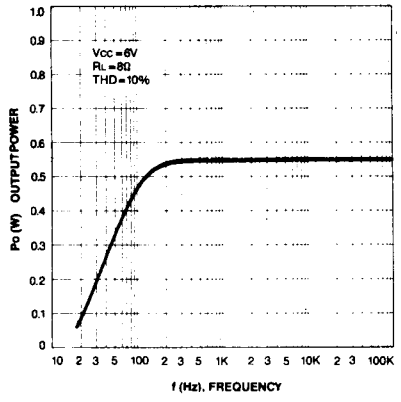
VOLTAGE GAIN-FREQUENCY



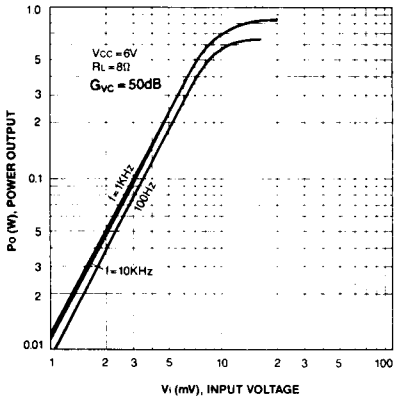
TOTAL HARMONIC DISTORTION-FREQUENCY



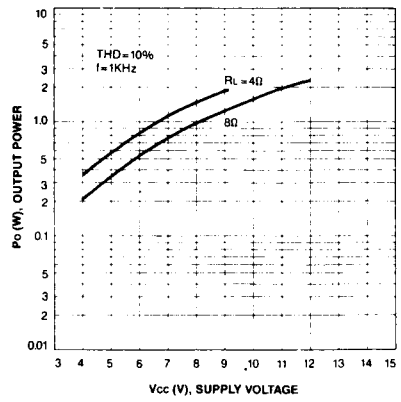
OUTPUT POWER-FREQUENCY



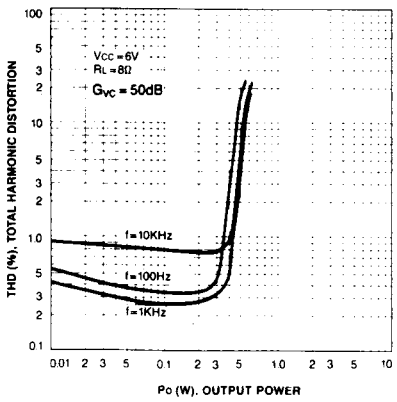
OUTPUT POWER-INPUT VOLTAGE



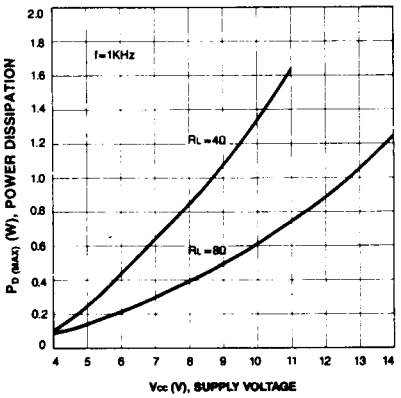
OUTPUT POWER-SUPPLY VOLTAGE



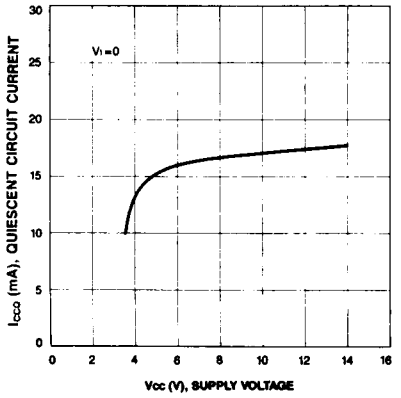
TOTAL HARMONIC DISTORTION-OUTPUT POWER



POWER DISSIPATION-SUPPLY VOLTAGE



QUIESCENT CIRCUIT CURRENT-SUPPLY VOLTAGE



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