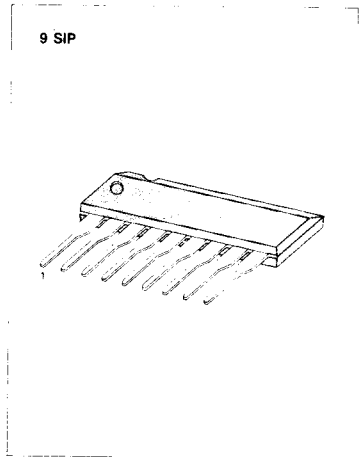


0.5W AUDIO POWER AMPLIFIER

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.

FEATURES

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



ORDERING INFORMATION

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

BLOCK DIAGRAM

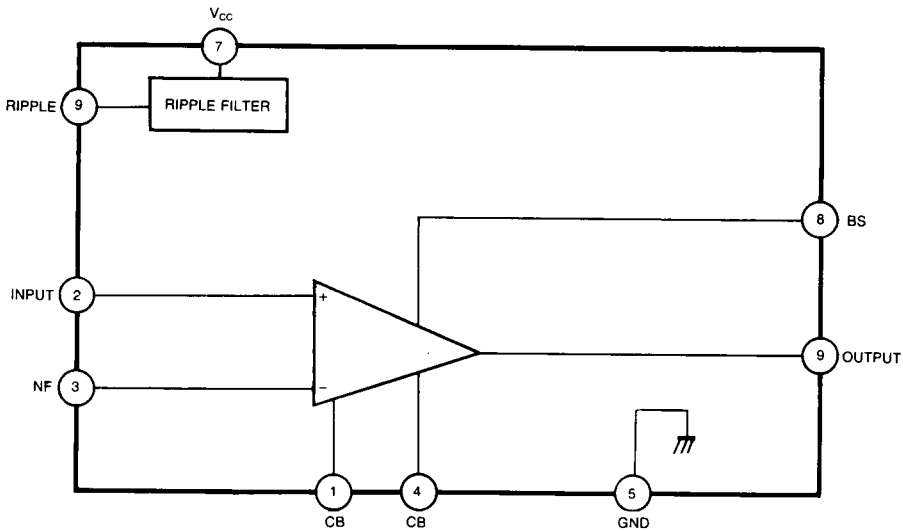


Fig. 1

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

3

ELECTRICAL CHARACTERISTICS

(T_a = 25°C, V_{CC} = 6V, R_L = 8Ω, R_C = 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

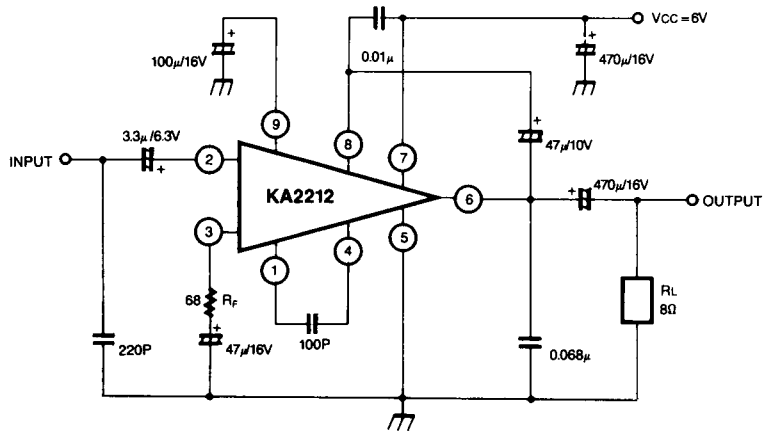
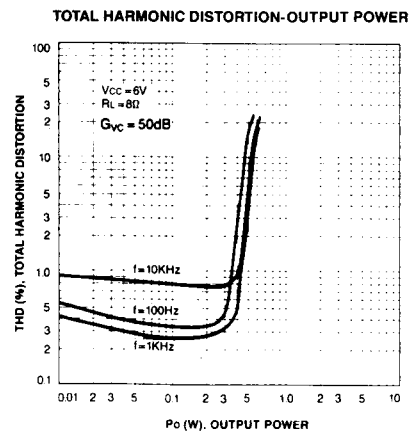
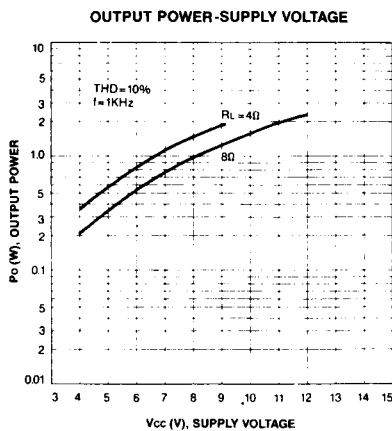
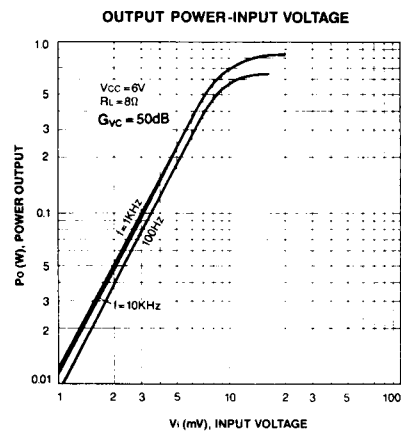
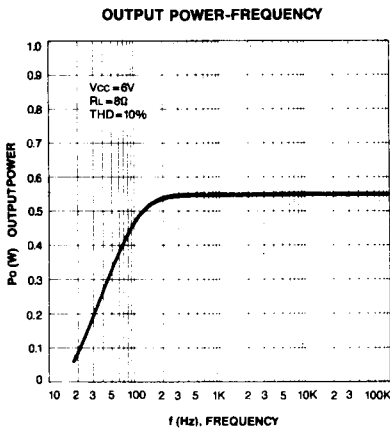
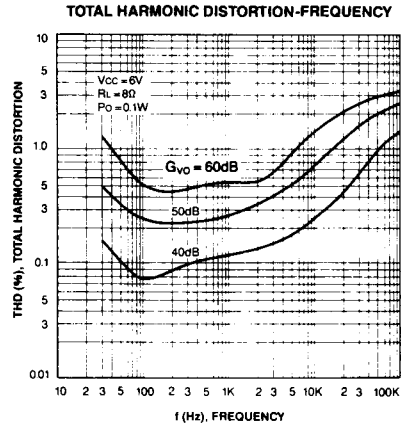
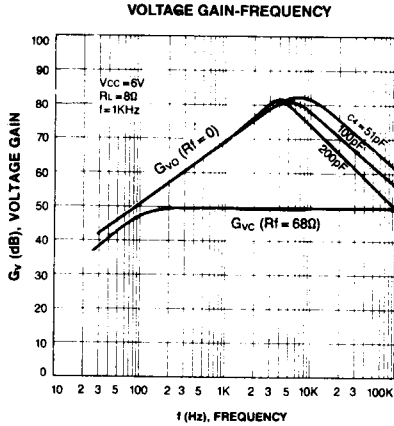
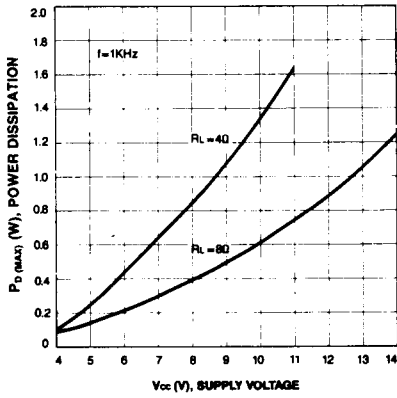


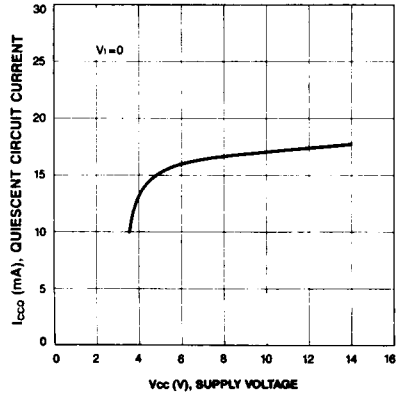
Fig. 2



POWER DISSIPATION-SUPPLY VOLTAGE



QUIESCENT CIRCUIT CURRENT-SUPPLY VOLTAGE



3



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