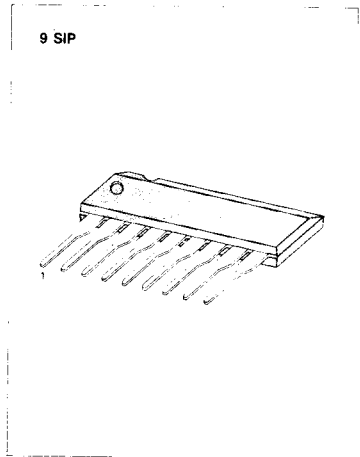


**0.5W AUDIO POWER AMPLIFIER**

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**

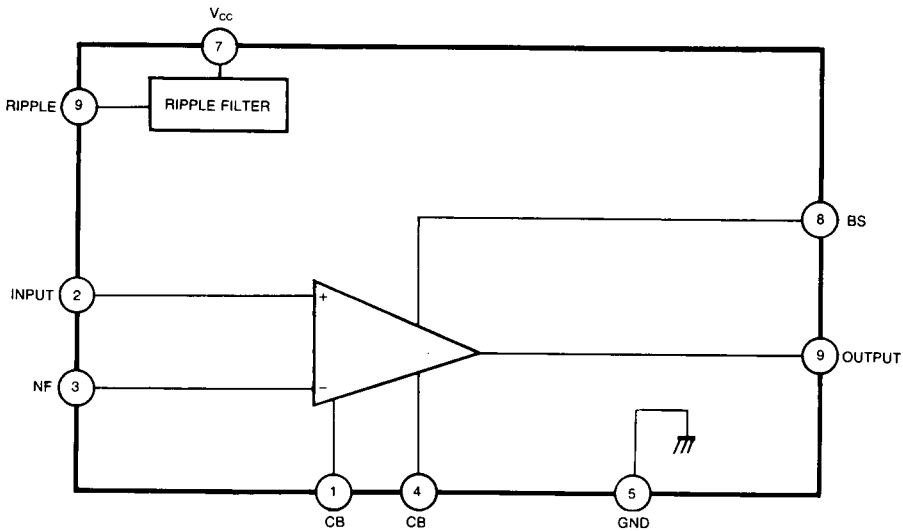


Fig. 1

ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub> = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V <sub>CC</sub>	14	V
Power Dissipation	P <sub>D</sub>	750	mW
Operating Temperature	T <sub>OPR</sub>	- 20 ~ + 70	°C
Storage Temperature	T <sub>STG</sub>	- 40 ~ + 150	°C

3

ELECTRICAL CHARACTERISTICS

(T<sub>a</sub> = 25°C, V<sub>CC</sub> = 6V, R<sub>L</sub> = 8Ω, R<sub>C</sub> = 600Ω, R<sub>F</sub> = 68Ω, f = 1KHz, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	I <sub>CCQ</sub>	V <sub>i</sub> = 0		14		mA
Open Loop Voltage Gain	G <sub>VO</sub>	R <sub>F</sub> = 0Ω	60	75		dB
Closed Loop Voltage Gain	G <sub>VC</sub>	R <sub>F</sub> = 68Ω	47	50	52	dB
Output Power	P <sub>O</sub>	THD = 10%	0.45	0.5		W
Total Harmonic Distortion	THD	P <sub>O</sub> = 100mW		0.3	1.0	%
Input Resistance	R <sub>i</sub>			15		KΩ
Output Noise Voltage	V <sub>NO</sub>	R <sub>G</sub> = 10KΩ BW (-3dB) = 50Hz ~ 20KHz		0.4	1.0	mV

TEST CIRCUIT

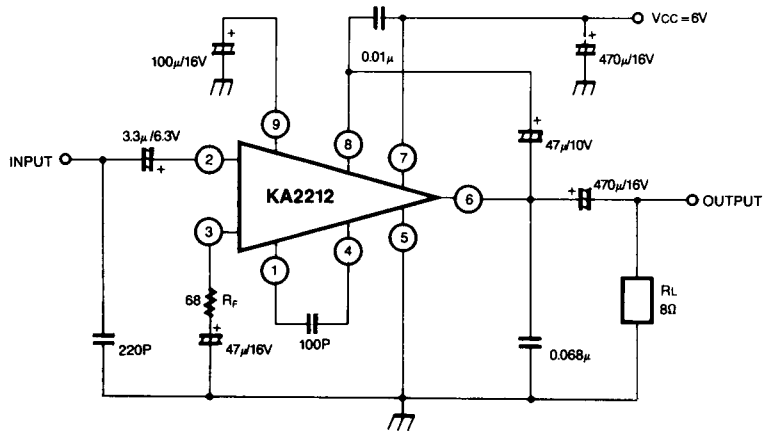
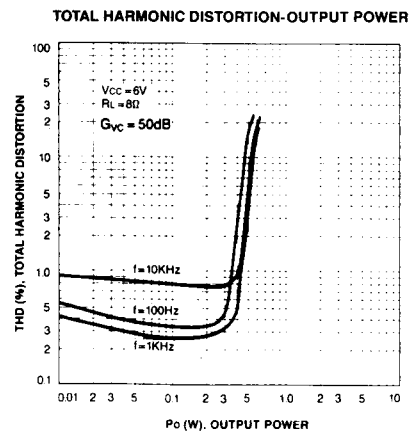
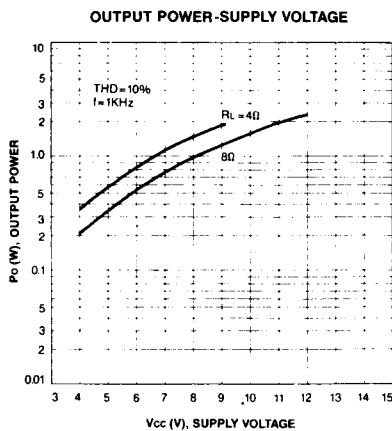
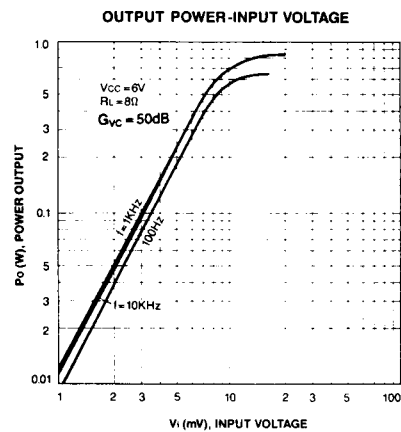
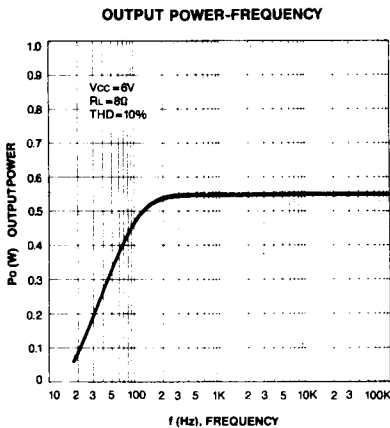
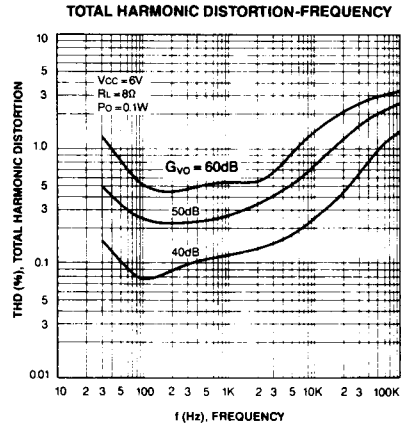
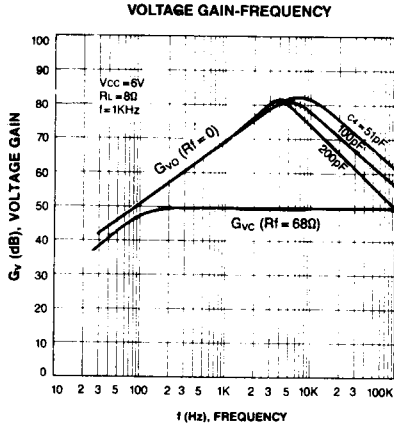
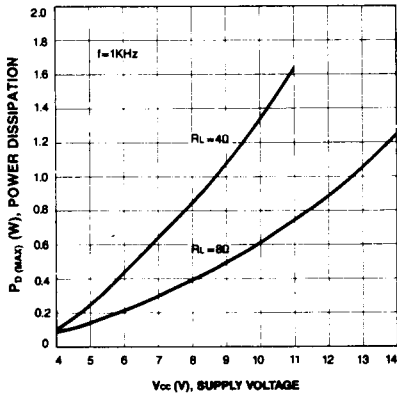


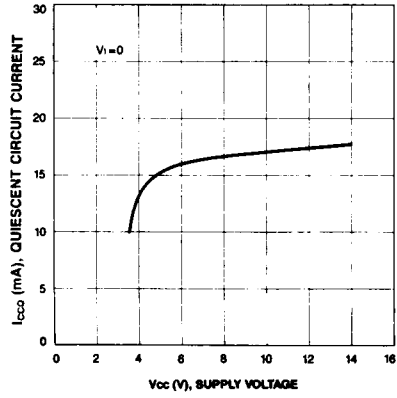
Fig. 2



POWER DISSIPATION-SUPPLY VOLTAGE



QUIESCENT CIRCUIT CURRENT-SUPPLY VOLTAGE



3