

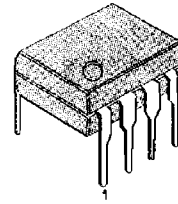
1.2W AUDIO POWER AMPLIFIER

The KA2201 is a monolithic integrated audio amplifier. It is designed for audio frequency class B amplifiers.

FEATURES

- Wide operating supply voltage: $V_{CC} = 3V \sim 14V$
- Medium output power.
 $P_O = 1.2W$ at $V_{CC} = 9V$, $R_L = 8\Omega$, THD=10%.
- Low quiescent circuit current ($I_{CCQ} = 4mA$: Typ).
- Good ripple rejection.
- Minimum number of external parts required.

8 DIP



ORDERING INFORMATION

Device	Package	Operating Temperature
KA2201	8 DIP	-20°C ~ 70°C

BLOCK DIAGRAM

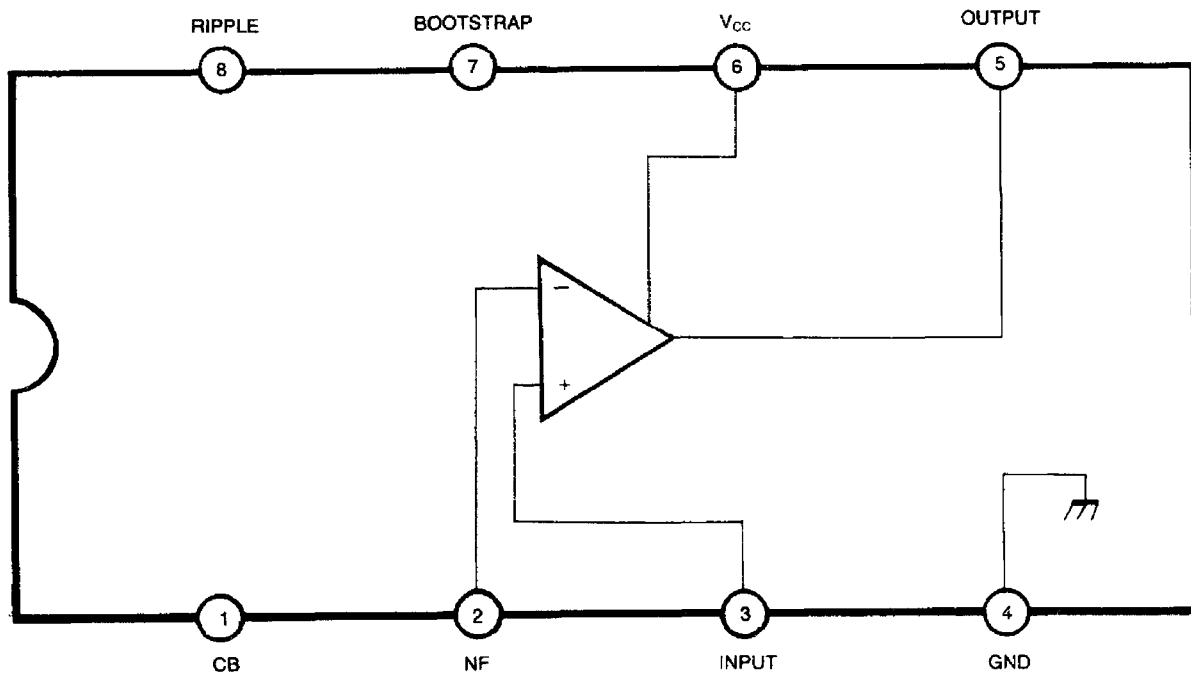


Fig. 1

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V _{CC}	16	V
Output Peak Current	I _{PK}	1.5	A
Power Dissipation	P _D	1.25	W
Operating Temperature	T _{OPR}	- 20 ~ + 70	°C
Storage Temperature	T _{STG}	- 40 ~ + 150	°C

ELECTRICAL CHARACTERISTICS

(T_a = 25°C, V_{CC} = 9V, f = 1KHz, R_G = 600Ω, R_F = 120Ω, R_L = 8Ω, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	I _{CCQ}	V _i = 0		4	12	mA
Output Power	P _O	V _{CC} = 9V, R _L = 4Ω, THD = 10%	0.9	1.6		W
		V _{CC} = 9V, R _L = 8Ω, THD = 10%		1.2		
		V _{CC} = 6V, R _L = 4Ω, THD = 10%		0.75		
		V _{CC} = 6V, R _L = 8Ω, THD = 10%	0.4	0.5		
		V _{CC} = 12V, R _L = 8Ω, THD = 10%		2		
Total Harmonic Distortion	THD	P _O = 500mW		0.3	1.0	%
Open Loop Voltage Gain	G _{VO}	R _F = 0		75		dB
Closed Loop Voltage Gain	G _{VC}	R _F = 120Ω	33	36	39	dB
Input Resistance	R _i			5		MΩ
Output Noise Voltage	V _{NO}	R _G = 10KΩ BW (- 3dB) = 50Hz ~ 20KHz		0.3	1.0	mV

TEST CIRCUIT

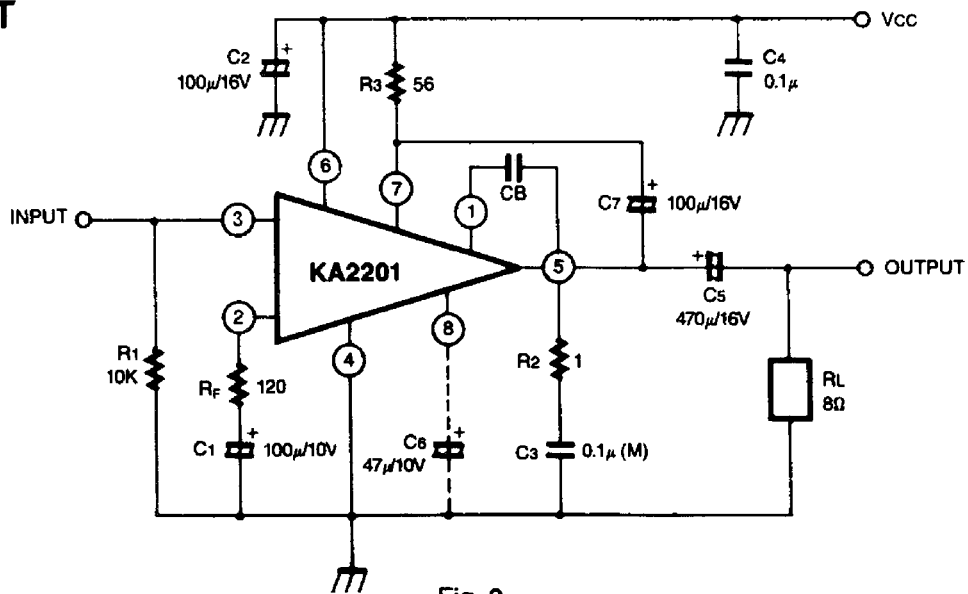
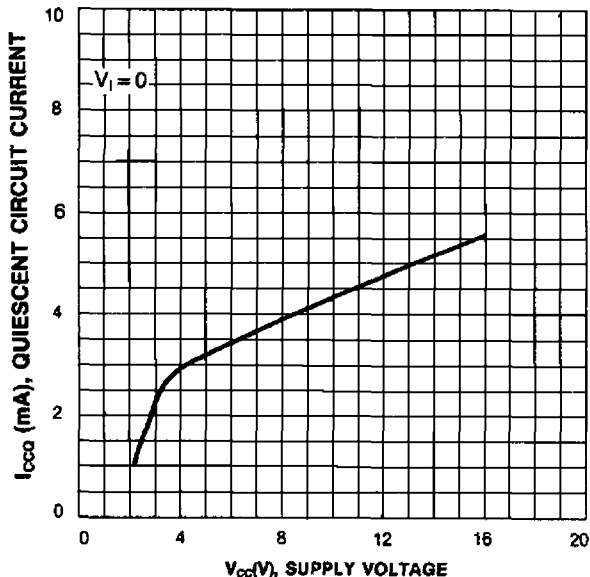
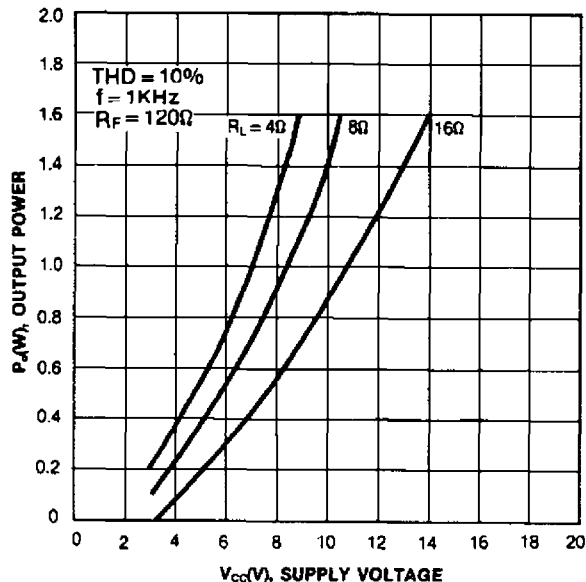


Fig. 2

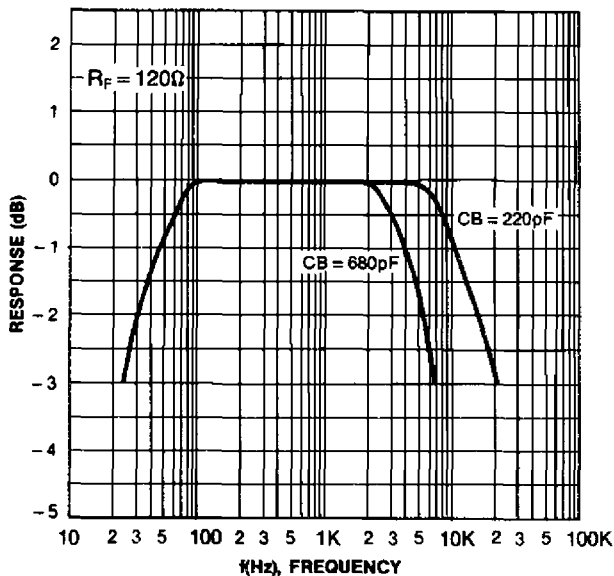
QUIESCENT CIRCUIT CURRENT--SUPPLY VOLTAGE



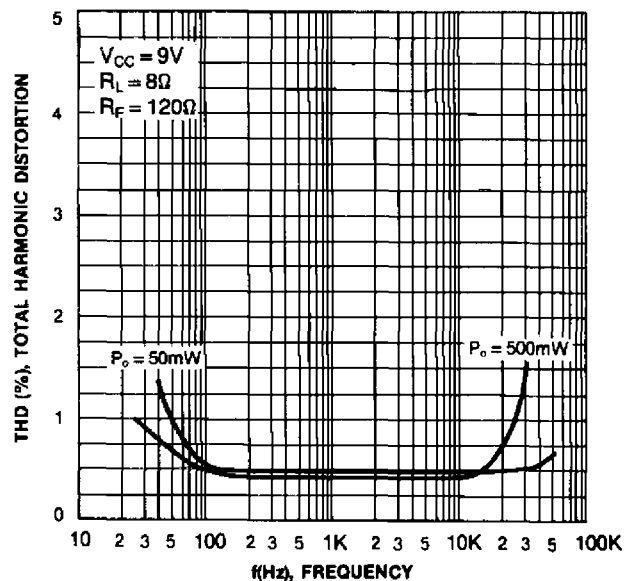
OUTPUT POWER-SUPPLY VOLTAGE



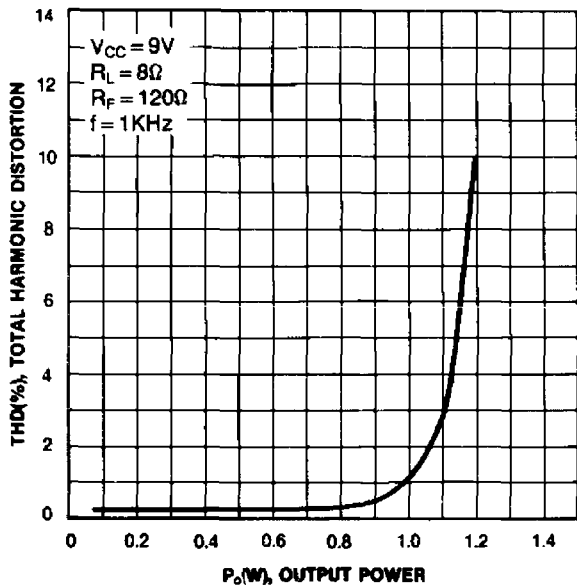
FREQUENCY RESPONSE



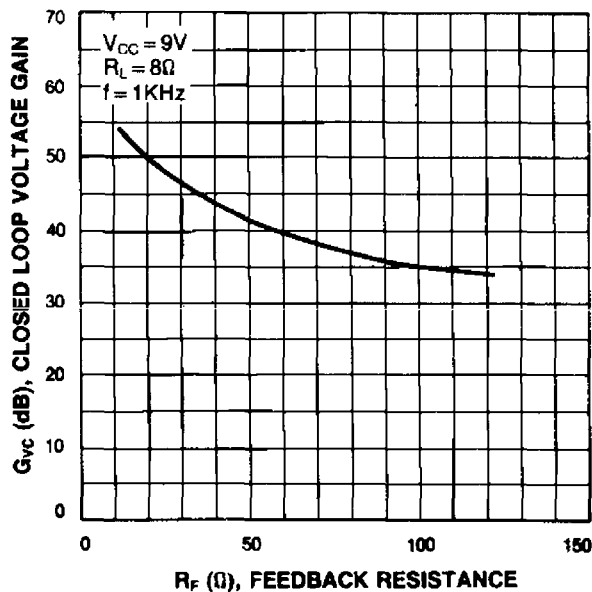
TOTAL HARMONIC DISTORTION-FREQUENCY



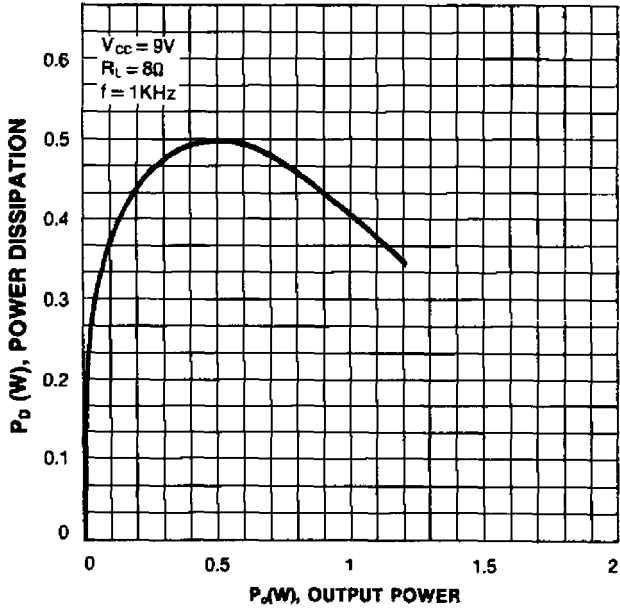
TOTAL HARMONIC DISTORTION-OUTPUT POWER



VOLTAGE GAIN-FEEDBACK RESISTANCE



POWER DISSIPATION-OUTPUT POWER



POWER DISSIPATION-SUPPLY VOLTAGE

