

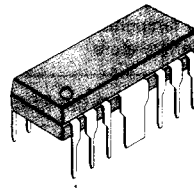
2.3W DUAL AUDIO POWER AMPLIFIER

The KA2206 is a monolithic integrated circuit consisting of a 2-channel power amplifier. It is suitable for stereo and bridge amplifier application of radio cassette tape recorders.

FEATURES

- **High output power**
Stereo: $P_O = 2.3W$ (Typ) at $V_{CC} = 9V$, $R_L = 4\Omega$.
Bridge: $P_O = 4.7W$ (Typ) at $V_{CC} = 9V$, $R_L = 8\Omega$.
- **Low switching distortion at high frequency.**
- **Small shock noise at the time of power on/off due to a built-in muting circuit**
- **Good ripple rejection due to a built-in ripple filter.**
- **Good channel separation.**
- **Soft tone at the time of output saturation.**
- **Closed loop voltage gain fixed 45dB (Bridge: 51dB) but availability with external resistor added.**
- **Minimum number of external parts required.**
- **Easy to design radiator fin.**

12 DIP/F



ORDERING INFORMATION

Device	Package	Operating Temperature
KA2206	12 DIP/F	- 20°C ~ 70°C

BLOCK DIAGRAM

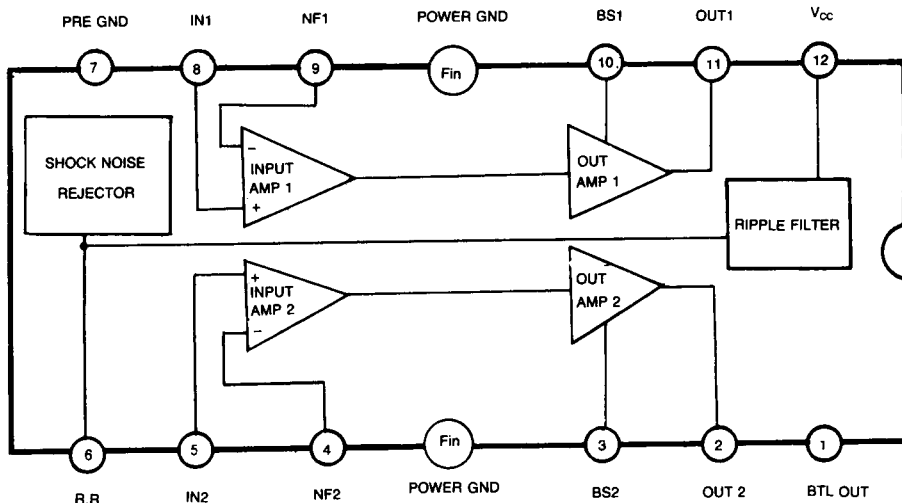


Fig. 1

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	15	V
Power Dissipation	P_D	4*	W
Operating Temperature	T_{OPR}	$-20 \sim +70$	$^\circ\text{C}$
Storage Temperature	T_{STG}	$-40 \sim +150$	$^\circ\text{C}$

* Fin is soldering on the PCB

ELECTRICAL CHARACTERISTICS

($T_a=25^\circ\text{C}$, $V_{CC}=9\text{V}$, $f=1\text{KHz}$ $R_G=600\Omega$, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Operating Supply Voltage	V_{CC}			9	11	V
Quiescent Circuit Current	I_{CCQ}	$V_I=0$, Stereo		40	55	mA
Closed Loop Voltage Gain	G_{VC}	Stereo $V_I=-45\text{dBm}$	43	45	47	dB
		Bridge	49	51	53	dB
Channel Balance	CB	Stereo	-1	0	+1	dB
Output Power	P_O	Stereo $R_L=4\Omega$, THD=10%	1.7	2.3		W
		$R_L=8\Omega$, THD=10%		1.3		W
		Bridge $R_L=8\Omega$, THD=10%		4.7		W
Total Harmonic Distortion	THD	Stereo $P_O=250\text{mW}$, $R_L=4\Omega$		0.3	1.5	%
		Bridge		0.5		%
Input Resistance	R_I		21	30		K Ω
Ripple Rejection Ratio	RR	Stereo, $R_G=0\Omega$, $V_I=150\text{mV}$ $f=100\text{Hz}$	40	46		dB
Output Noise Voltage	V_{NO}	Stereo, $R_G=0\Omega$		0.3	1.0	mV
		Stereo, $R_G=10\text{K}\Omega$		0.5	2.0	mV
Cross Talk	CT	Stereo, $R_G=10\text{K}\Omega$, $V_O=0\text{dBm}$	40	55		dB

APPLICATION CIRCUIT

1. Stereo Amplifier

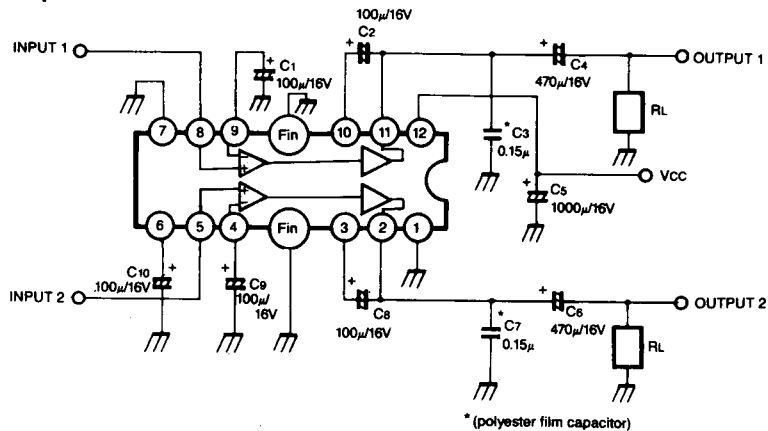


Fig. 2

2. Bridge Amplifier

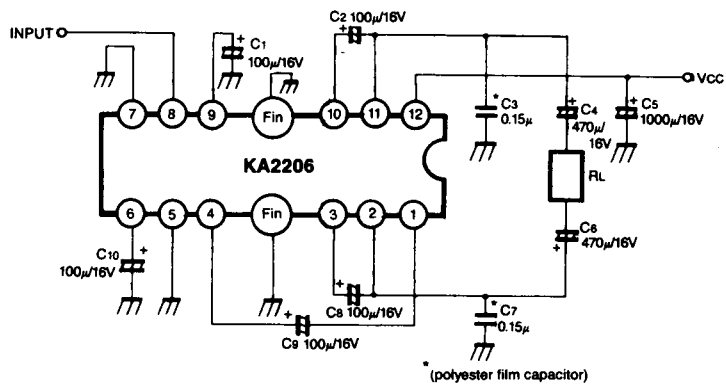


Fig. 3