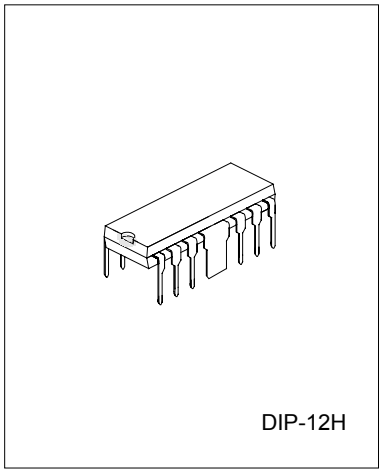
2.5W DUAL AUDIO POWER AMP



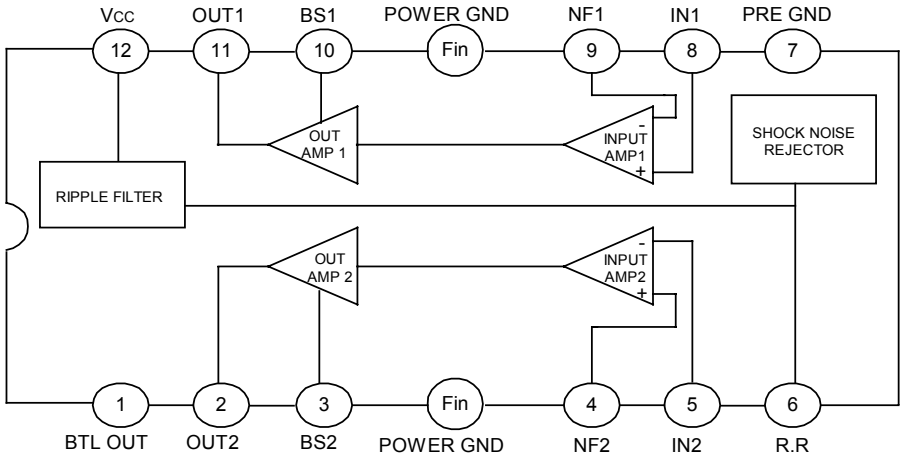
DESCRIPTION

The 2206 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
Stero:P_O=2.3W(Typ) at V_{CC}=9V,R_L=4Ω.
Bridge: P_O=4.7W(Typ) at V_{CC}=9V,R_L=8Ω.
*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.
*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.

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTICS	SYMBOL	RATING	UNIT
Supply Voltage	Vcc	15	V
Power Dissipation	P_D	4 *	W
Operating Temperature	TOPR	-20～+70	℃
Storage Temperature	TSTG	-40～+150	℃

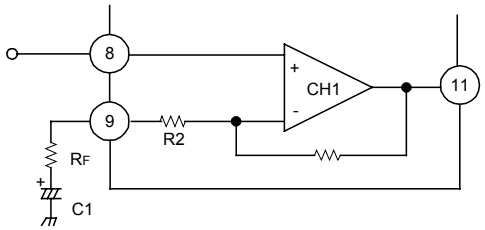
*Fin is soldering on the PCB

ELECTRICAL CHARACTERISTICS (Ta=25℃,Vcc=9V,f=1Khz RG=600Ω,unless otherwise specified)

CHARACTERISTICS	SYMBOL	TEST CONDITION		MIN	TYP	MAX	UNIT
Operating Supply Voltage	Vcc				9	11	V
Quiescent Circuit Current	IccQ	Vi=0,Stereo			40	55	mA
Closed Loop Voltage Gain	GVC	Stereo	Vi=-45dBm	43	45	47	dB
		Bridge		49	51	53	dB
Output Power	Po	Stereo	RL=4Ω,THD=10%	1.7	2.3		W
			RL=8Ω,THD=10%		1.3		W
		Bridge	RL=8Ω,THD=10%		4.7		W
Channel Balance	CB	Stereo		-1	0	1	dB
Total Harmonic Distortion	THD	Stereo	Ro=250mW,RL=4Ω		0.3	1.5	%
		Bridge			0.5		%
Input Resistance	RI			21	30		KΩ
Ripple Rejection Ratio	RR	Stereo,RG=0Ω,Vr=150mW,f=100Hz		40	46		dB
Output Noise Voltage	VNO	Stereo,RG=0Ω			0.3	1.0	mW
		Stereo, RG=10KΩ			0.5	2.0	mV
Cross Talk	CT	Stereo, RG=10KΩ,Vo=0dBm		40	55		dB

APPLICATION INFORMATION

1. Stereo application



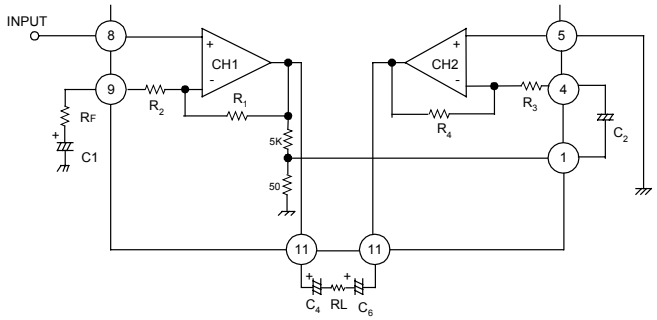
i) Fixed voltage gain
(Pin 9 connected to GND directly)

$$Gv=20\log\frac{R_1}{R_2}\ (dB)$$

ii) Variable voltage gain
(R_f and C_1 connected with pin 9)

$$Gv=20\log\frac{R_1}{R_2+R_F}\ (dB)$$

2. Bridge application



i) Fixed voltage gain (Pin 9 connected to GND directly)

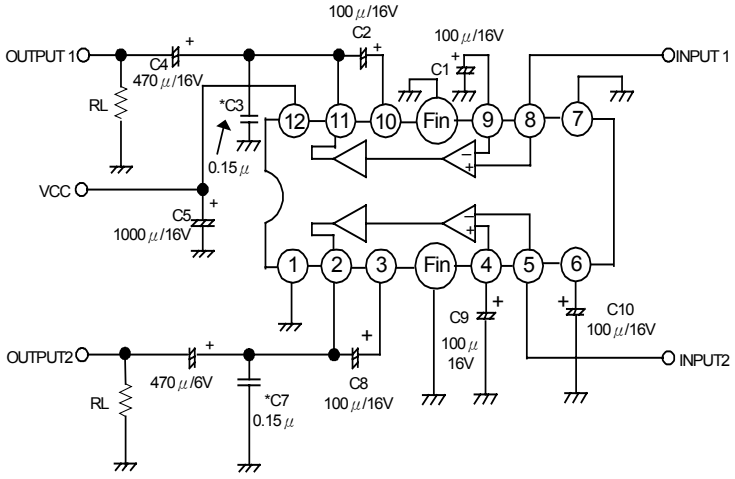
$$Gv=20 \log \frac{R1}{R2} + 6(dB)$$

ii) Variable voltage gain RF and C1 connected with pin 9)

$$Gv=20 \log \frac{R1}{R2+RF} + 6(dB)$$

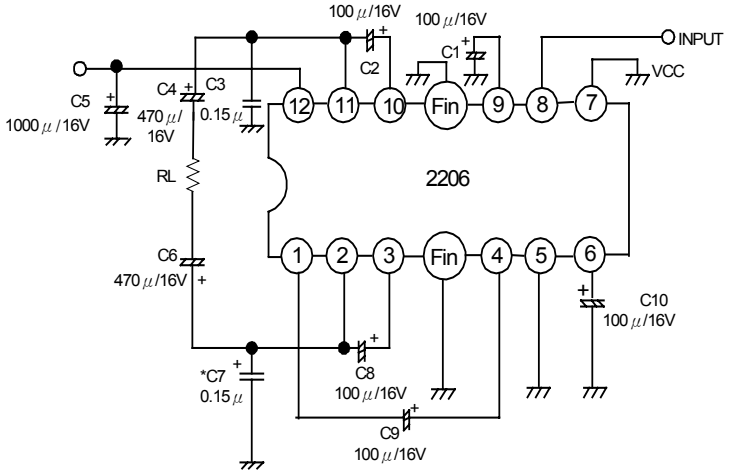
APPLICATION CIRCUIT

1.Stereo Amplofier



*polyester film capacltor

2.Bridge Amplifier



*polyester film capacltor