

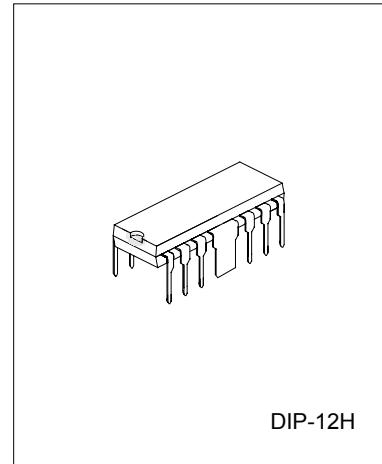
2.5W DUAL AUDIO POWER AMP

DESCRIPTION

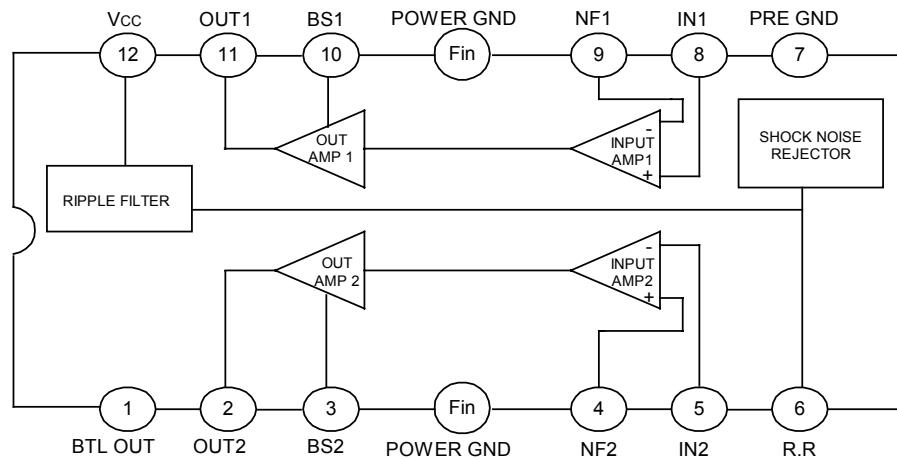
The 2206 is a monolithic integrated circuit consisting of a 2-channel power amplifier .It is suitable for stereo and bridge amplifier application of radio cassette tape recorders.

FEATURES

- *High output power
Stero:Po=2.3W(Typ) at Vcc=9V,RL=4 Ω .
Bridge: Po=4.7W(Typ) at Vcc=9V,RL=8 Ω .
- *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



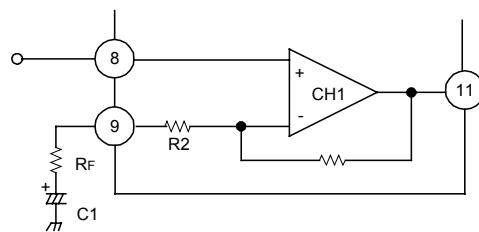
UTC2206**LINEAR INTEGRATED CIRCUIT****ABSOLUTE MAXIMUM RATINGS (Ta=25°C)**

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

*Fin is soldering on the PCB

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

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

APPLICATION INFORMATION**1. Stereo application**

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

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

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

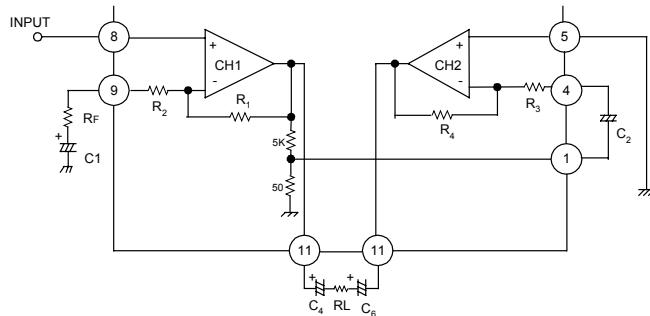
$$Gv = 20 \log \frac{R_1}{R_2 + R_F} \text{ (dB)}$$

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QW-R107-018,A

2. Bridge application



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

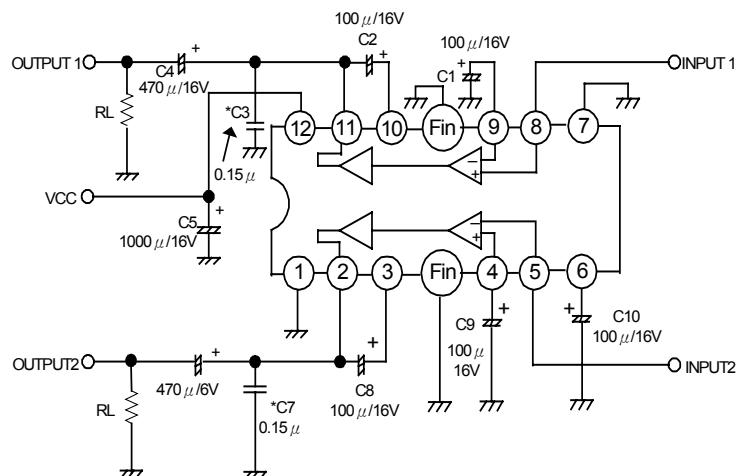
$$Gv = 20 \log \frac{R_1}{R_2} + 6(\text{dB})$$

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

$$Gv = 20 \log \frac{R_1}{R_2 + RF} + 6(\text{dB})$$

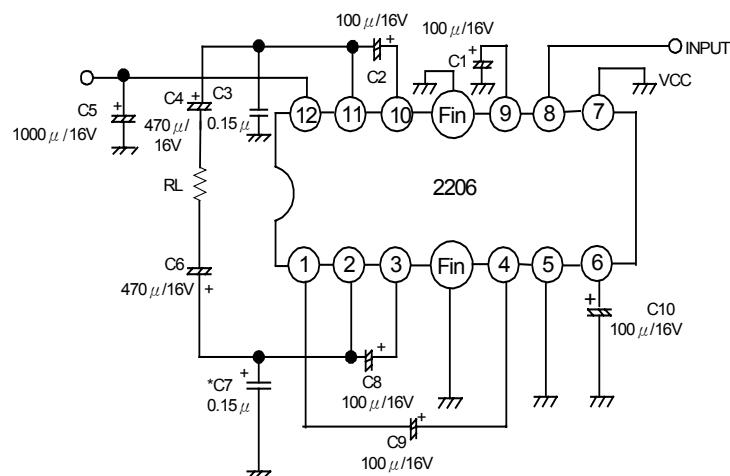
APPLICATION CIRCUIT

1. Stereo Amplifier



*polyester film capacitor

2.Bridge Amplifier



*polyester film capacitor