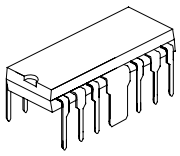
STEREO AUDIO AMPLIFIER



HDIP-12

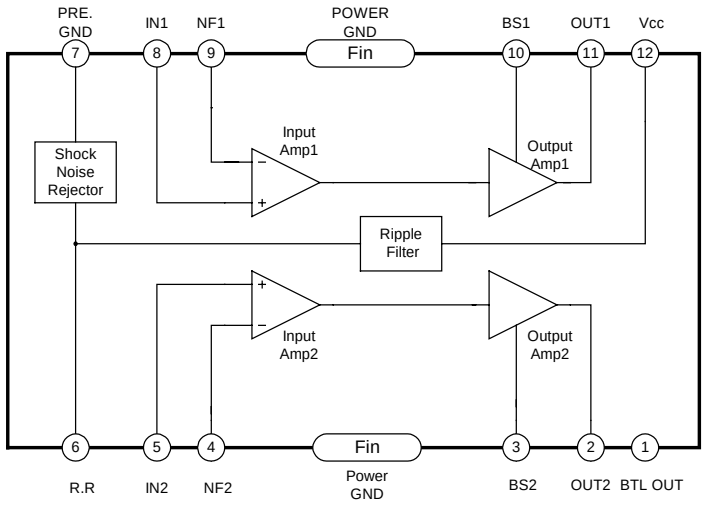
DESCRIPTION

The UTC2206B is a monolithic integrated consisting of a 2-channel poweramplifier. It is designed for portable cassette players and radios.

FEATURES

* Higher output power
  Stereo: Po=2.3W(Typ.) at Vcc=9V,RL=4Ω
  Bridge: Po=4.7W(Typ.) at Vcc=9V,RL=8Ω
* Low voltage distortion at high frequency
* Small shock noise at the time of ON/OFF due to a built-in muting Circuit.
* Closed loop voltage gain fixed 45dB(Bridge: 51dB) but available with external resistor added)

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Value	Unit
Supply Voltage	V_S	15	V
Power Dissipation(note)	P_D	4	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-40～+150	°C

NOTE: Fin is soldering on PCB.

ELECTRICAL CHARACTERISTICS

(Tamb=25℃,V_{CC}=9V,f=1kHz, Rg=600Ω,Unless otherwise specified)

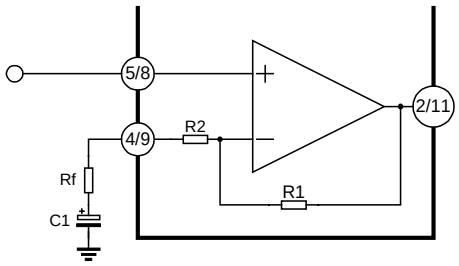
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Supply Voltage	V_S				9	11	V
Quiescent Current	I_Q			—	40	50	mA
Voltage gain	A_V	Stereo, Vin= - 45dBm		43	45	47	dB
		Bridge		49	51	53	
Channel balance	CB	Stereo		-1	0	+1	dB
Voltage gain difference	ΔA_V			—	—	±1	dB
Input impedance	Ri			—	30	—	kΩ
Output Power	P_O	Stereo	R_L=4Ω ,THD=1 0%	1.7	2.3		W
			R_L=8Ω ,THD=1 0%		1.3		
		Bridge	R_L=8Ω ,THD=1 0%		4.7		
Total Harmonic Distortion	THD	Stereo	Po=250mW,R_L=4Ω		0.3	1.5	%
		Bridge		-	0.5	-	
Input Resistance	Ri			21	30		kΩ
Ripple rejection ratio	RR	Stereo,R_G=0, Vr=150mW, f=100Hz		40	46		dB
Cross-Talk	C.T.	R_G=10kΩ; Vo=0dBm		40	55	-	dB

APPLICATION INFORMATION

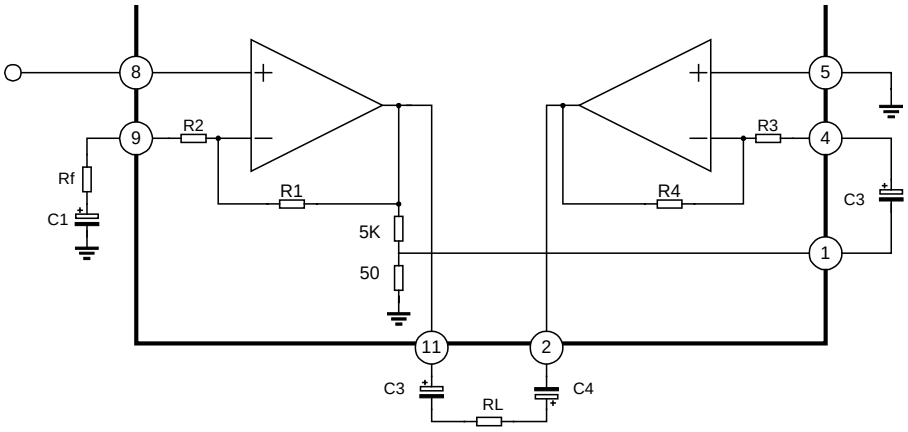
1. Stereo application

1). Fixed voltage gain(pin 4/9 connected to GND directly)
Gv=20*log(R2/R1) (dB)

2). Variable voltage gain(refer to the right figure).
Gv=20*log[R1/(R2+Rf)] (dB)



2. Bridge application



1). Fixed voltage gain(pin 4/9 connected to GND directly)
Gv=20*log(R2/R1) + 6 (dB)

2). Variable voltage gain(refer to the right figure).
Gv=20*log[R1/(R2+Rf)] + 6 (dB)

APPLICATION CIRCUITS

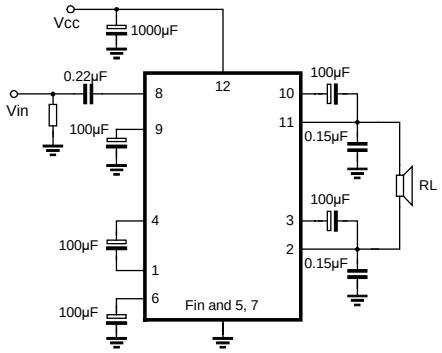


Fig. 5 Bridge Application

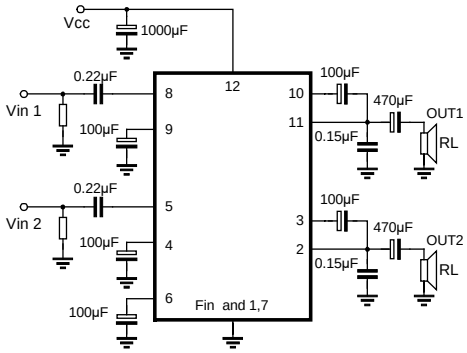


Fig.6 Stereo Application