

# KA2206B(12V)

# LINEAR INTEGRATED CIRCUIT

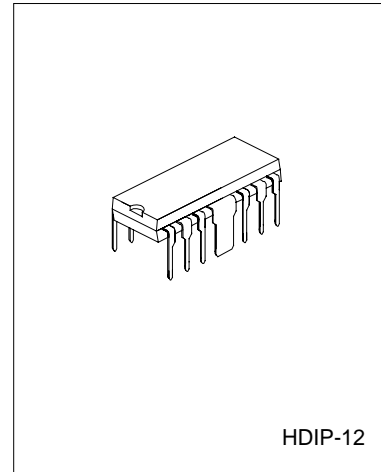
## STEREO AUDIO AMPLIFIER

### DESCRIPTION

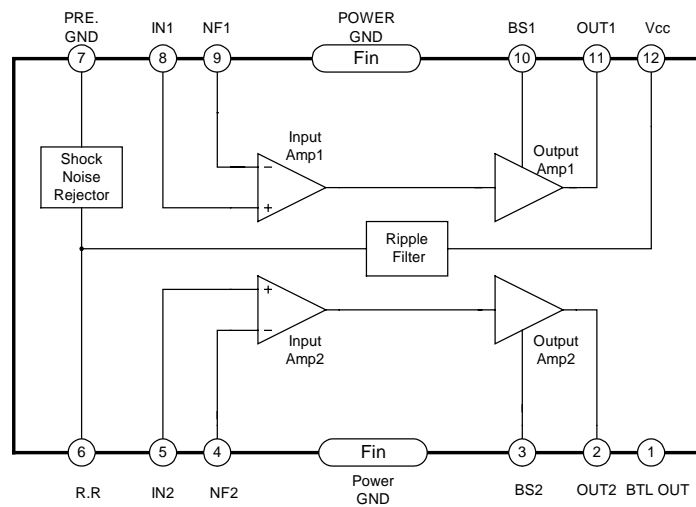
The KA2206B is a monolithic integrated consisting of a 2-channel poweramplifier. It is designed for portable cassette players and radios.

### FEATURES

- \* Higher 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 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	Vs	12	V
Power Dissipation(note)	PD	4	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-40~+150	°C

NOTE: Fin is soldering on PCB.

**ELECTRICAL CHARACTERISTICS**

(Tamb=25°C, Vcc=9V, f=1kHz, Rg=600Ω, Unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Supply Voltage	Vs			9	12	V	
Quiescent Current	Iq		—	40	50	mA	
Voltage gain	Av	Stereo, Vin= -45dBm	43	45	47	dB	
		Bridge	49	51	53		
Channel balance	CB	Stereo	-1	0	+1	dB	
Voltage gain difference	ΔAv		—	—	±1	dB	
Input impedance	Ri		—	30	—	kΩ	
Output Power	Po	Stereo	RL=4Ω, THD=1 0%	1.7	2.3	W	
		Bridge	RL=8Ω, THD=1 0%		1.3		
Total Harmonic Distortion	THD	Stereo	Po=250mW, RL=4Ω		0.3	1.5	%
		Bridge		-	0.5	-	
Input Resistance	Ri		21	30		kΩ	
Ripple rejection ratio	RR	Stereo, Rg=0, Vr=150mW, f=100Hz	40	46		dB	
Cross-Talk	C.T.	Rg=10kΩ; Vo=0dBm	40	55	-	dB	

**APPLICATION INFORMATION**

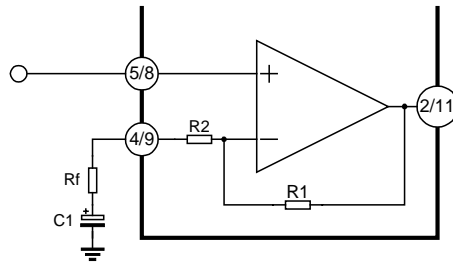
**1. Stereo application**

1). Fixed voltage gain(pin 4/9 connected to GND directly)

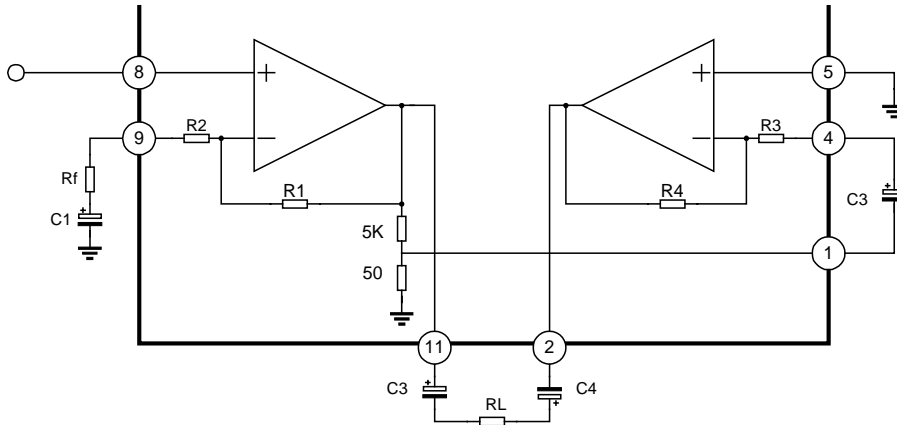
$$Gv=20 \cdot \log(R2/R1) \text{ (dB)}$$

2). Variable voltage gain( refer to the right figure).

$$Gv=20 \cdot \log[R1/(R2+Rf)] \text{ (dB)}$$



2. Bridge application



- 1). Fixed voltage gain (pin 4/9 connected to GND directly)  
 $Gv = 20 \cdot \log(R2/R1) + 6$  (dB)
- 2). Variable voltage gain (refer to the right figure).  
 $Gv = 20 \cdot \log[R1/(R2+Rf)] + 6$  (dB)

APPLICATION CIRCUITS

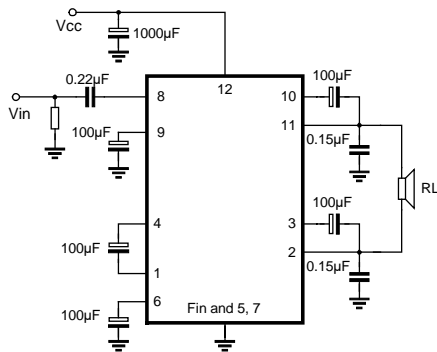


Fig. 5 Bridge Application

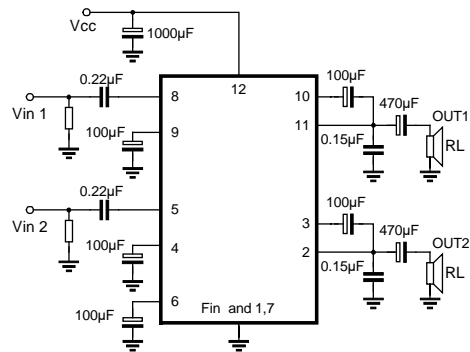


Fig. 6 Stereo Application