

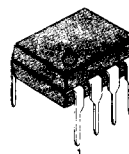
## DUAL LOW VOLTAGE POWER AMPLIFIER

The KA2209 is a monolithic integrated audio amplifier in a 8-pin plastic dual in line package. It is designed for portable cassette players and radios.

## FEATURES

- Wide operating supply voltage:  $V_{CC}=1.8V \sim 9V$
- Low crossover distortion
- Low quiescent circuit current
- Bridge/stereo configuration

8 DIP



## ORDERING INFORMATION

Device	Package	Operating Temperature
KA2209	8 DIP	$-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

## BLOCK DIAGRAM

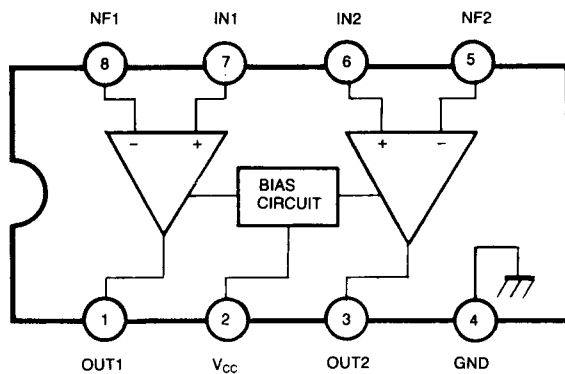


Fig. 1

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

Characteristic	Symbol	Value	Unit
Supply Voltage	$V_{CC}$	15	V
Output Peak Current	$I_{PK}$	1	A
Power Dissipation	$P_D$	at $T_{AMB} = 50^\circ\text{C}$ 1.0 at $T_{CASE} = 50^\circ\text{C}$ 1.4	W
Operating Temperature	$T_{OPR}$	$-20 \sim +70$	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	$-40 \sim +150$	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS**(T<sub>a</sub> = 25°C, V<sub>CC</sub> = 6V, f = 1KHz, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Operating Voltage	$V_{CC}$		1.8		9	V
Quiescent Circuit Current	$I_{CCQ}$	$V_i = 0$		9		mA
Closed Loop Voltage Gain	$G_{VC}$	Stereo		40		dB
		Bridge		40		dB
Channel Balance	CB	Stereo	-1	0	1	dB
Output Power	$P_O$	Stereo	$V_{CC}=6V, R_L=4\Omega, THD=10\%$	0.4	0.65	W
			$V_{CC}=3V, R_L=4\Omega, THD=10\%$		0.11	W
		Bridge	$V_{CC}=6V, R_L=8\Omega, THD=10\%$	0.9	1.35	W
			$V_{CC}=3V, R_L=4\Omega, THD=10\%$		0.35	W
Total Harmonic Distortion	THD	Stereo, $R_L=8\Omega, P_O=0.2W$		0.5		%
		Bridge, $R_L=8\Omega, P_O=0.5W$		0.5		%
Ripple Rejection Ratio	RR	Stereo, $f=100\text{Hz}, C_3=100\mu\text{F}$	24	30		dB
Output Noise Voltage	$V_{NO}$	Stereo, $BW(-3dB)=20\text{Hz} \sim 20\text{KHz}$		0.5	2.0	mV
Cross Talk	CT	Stereo, $f=1\text{KHz}$		50		dB
Input Resistance	$R_i$		100			K $\Omega$

## APPLICATION CIRCUIT

## 1. STEREO

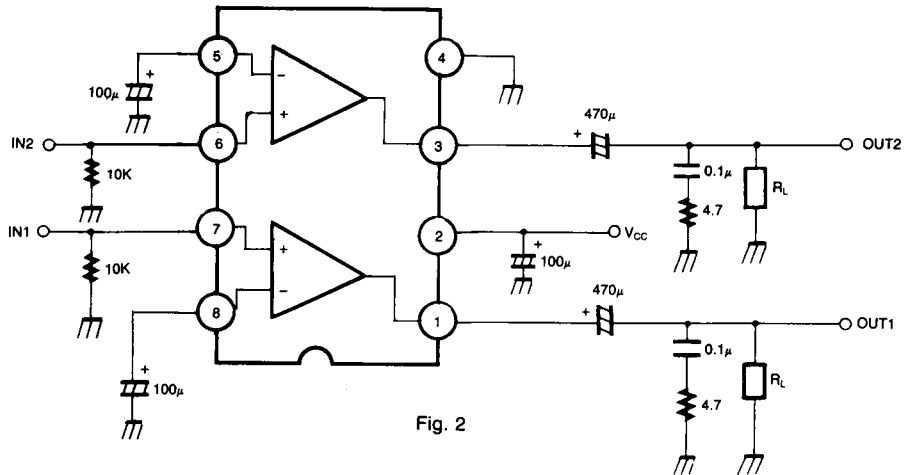


Fig. 2

## 2. BRIDGE

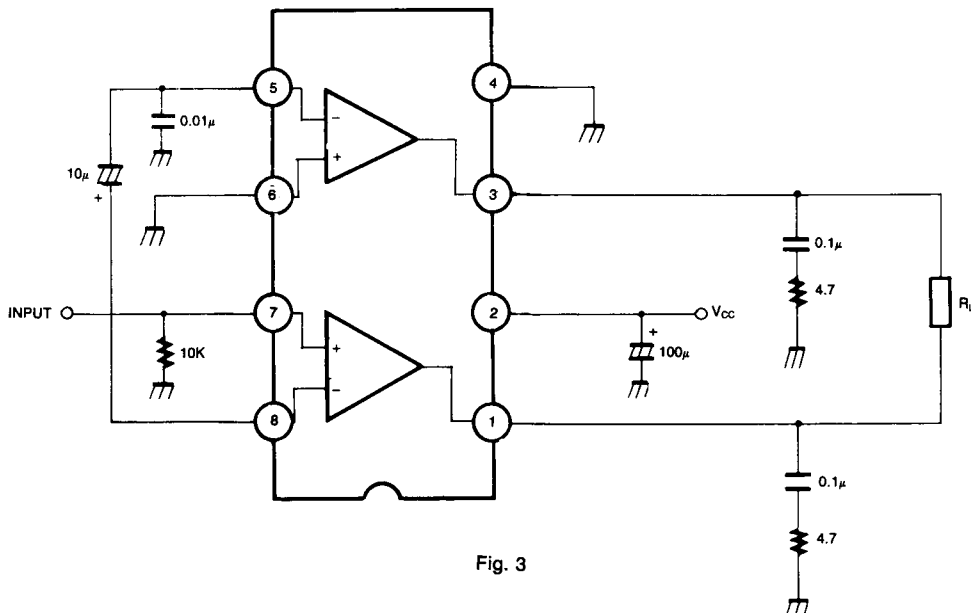


Fig. 3