

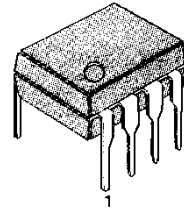
DUAL LOW VOLTAGE POWER AMPLIFIER

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

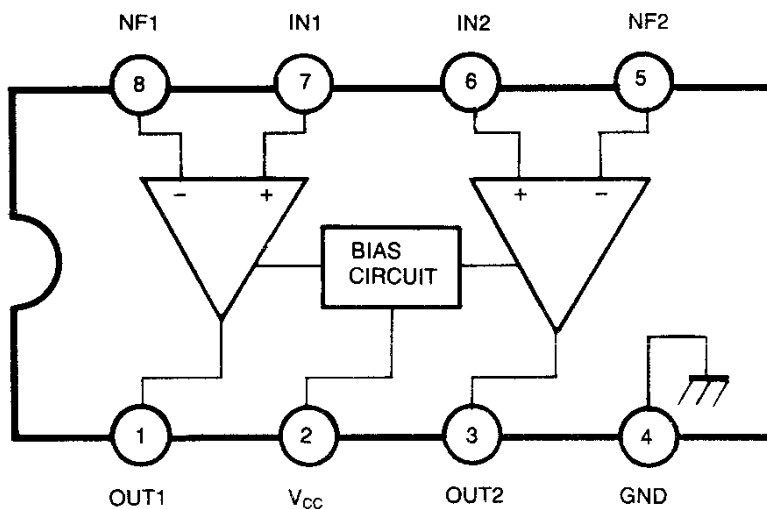


Fig. 1

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 ~ +70	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 ~ +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS($T_a = 25^\circ\text{C}$, $V_{CC} = 6\text{V}$, $f = 1\text{KHz}$, 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	$V_{CC} = 6\text{V}$, $R_L = 4\Omega$, THD=10%	0.4	0.65		W
			$V_{CC} = 3\text{V}$, $R_L = 4\Omega$, THD=10%		0.11		W
		Bridge	$V_{CC} = 6\text{V}$, $R_L = 8\Omega$, THD=10%	0.9	1.35		W
			$V_{CC} = 3\text{V}$, $R_L = 4\Omega$, THD=10%		0.35		W
Total Harmonic Distortion	THD	Stereo, $R_L = 8\Omega$, $P_O = 0.2\text{W}$		0.5		%	
		Bridge, $R_L = 8\Omega$, $P_O = 0.5\text{W}$		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) = 20Hz ~ 20KHz		0.5	2.0	mV	
Cross Talk	CT	Stereo, $f = 1\text{KHz}$		50		dB	
Input Resistance	R_i		100			K Ω	

APPLICATION CIRCUIT

1. STEREO

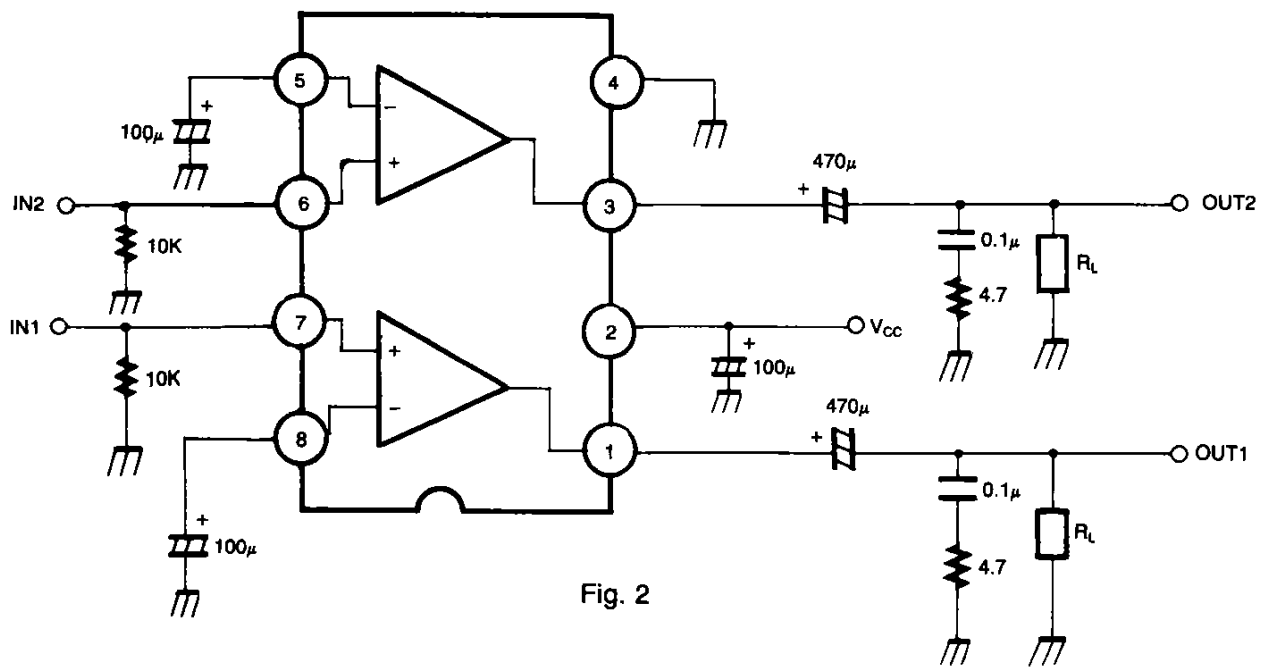


Fig. 2

2. BRIDGE

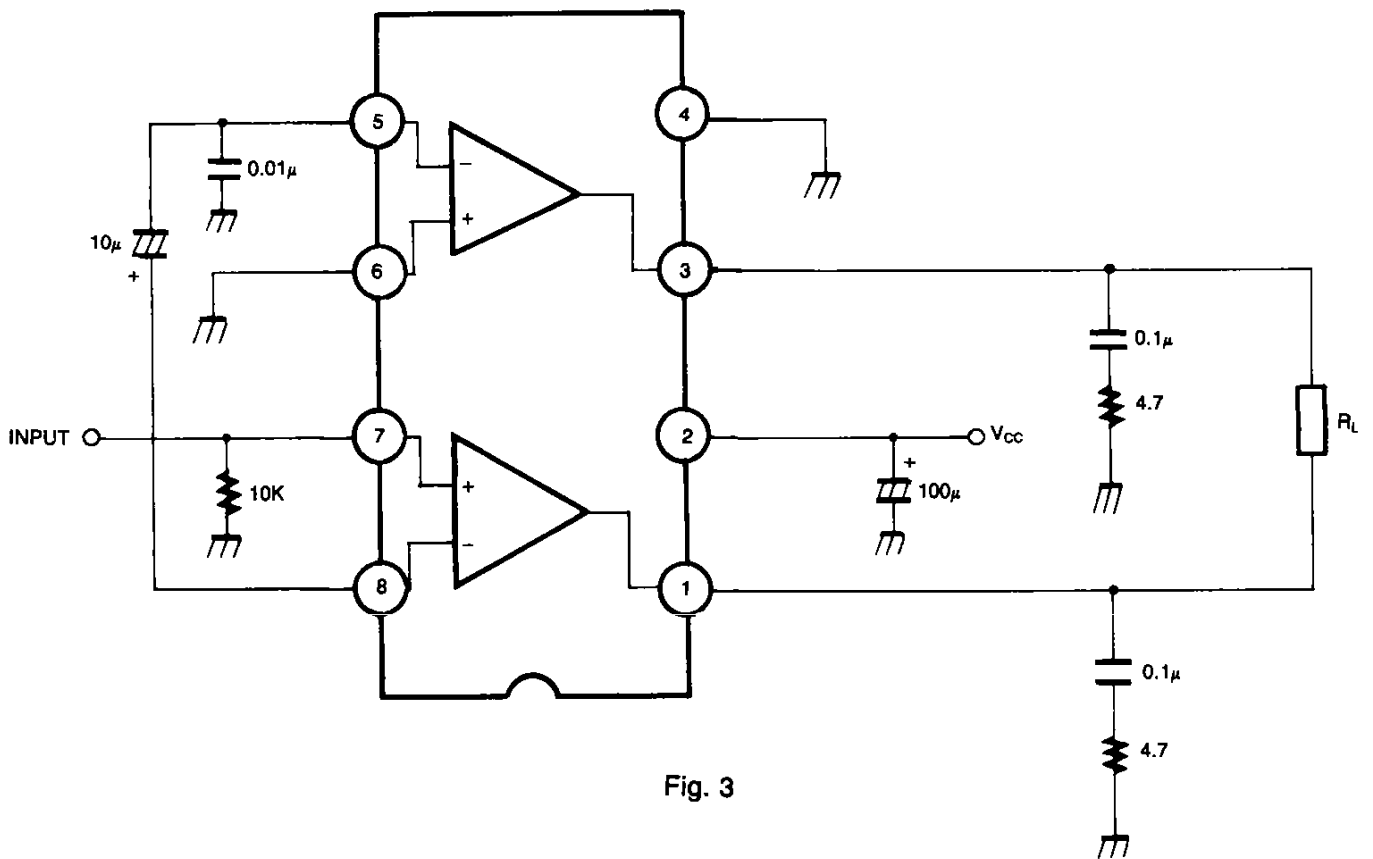


Fig. 3