

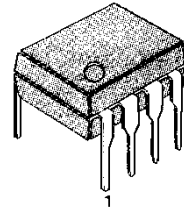
## DUAL LOW VOLTAGE POWER AMPLIFIER

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

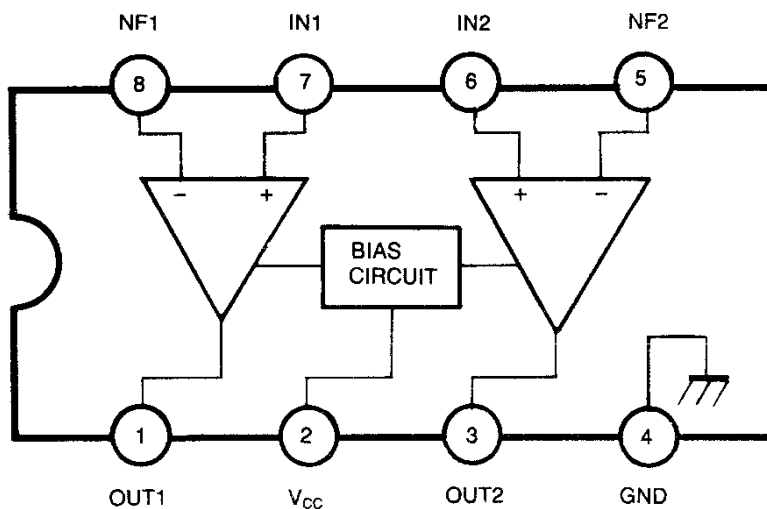


Fig. 1

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

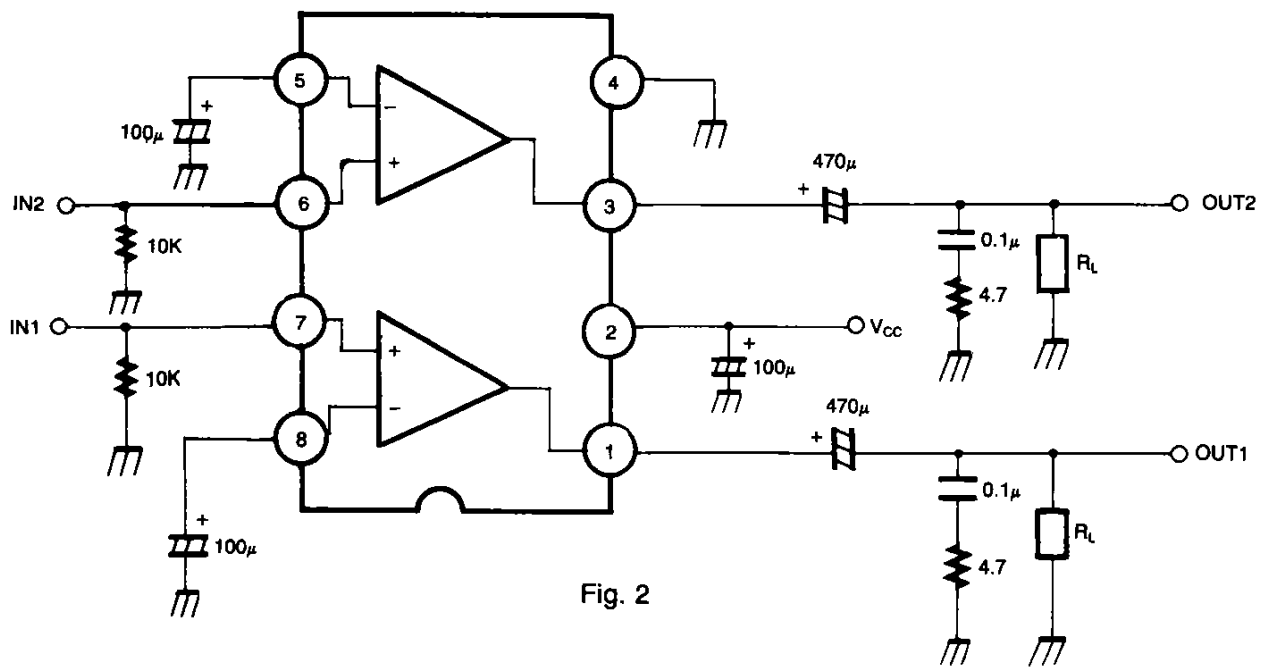
Characteristic	Symbol	Value	Unit
Supply Voltage	$V_{CC}$	15	V
Output Peak Current	$I_{PK}$	1	A
Power Dissipation	$P_D$	at $T_{AMB} = 50^\circ\text{C}$ 1.0 at $T_{CASE} = 50^\circ\text{C}$ 1.4	W
Operating Temperature	$T_{OPR}$	-20 ~ +70	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40 ~ +150	$^\circ\text{C}$

**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 $\Omega$	

# APPLICATION CIRCUIT

## 1. STEREO



## 2. BRIDGE

