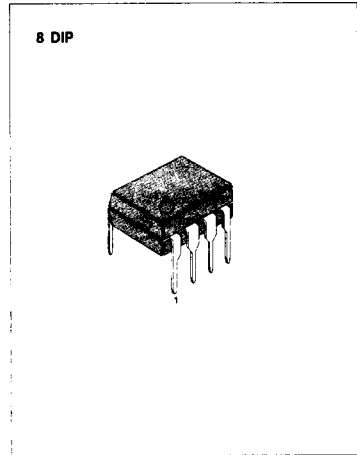


**DUAL LOW VOLTAGE POWER AMPLIFIER**

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:  $V_{CC} = 1.8V - 9V$
- Low crossover distortion
- Low quiescent circuit current
- Bridge/stereo configuration



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**ORDERING INFORMATION**

Device	Package	Operating Temperature
KA2209	8 DIP	-20°C ~ +70°C

**BLOCK DIAGRAM**

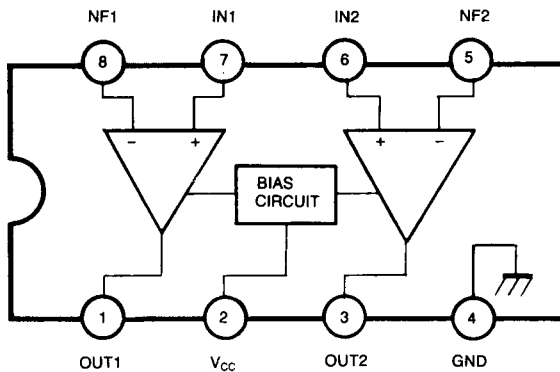


Fig. 1

ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub> = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V <sub>CC</sub>	15	V
Output Peak Current	I <sub>PK</sub>	1	A
Power Dissipation	P <sub>D</sub>	at T <sub>AMB</sub> = 50°C 1.0 at T <sub>CASE</sub> = 50°C 1.4	W
Operating Temperature	T <sub>OPR</sub>	- 20 ~ + 70	°C
Storage Temperature	T <sub>STG</sub>	- 40 ~ + 150	°C

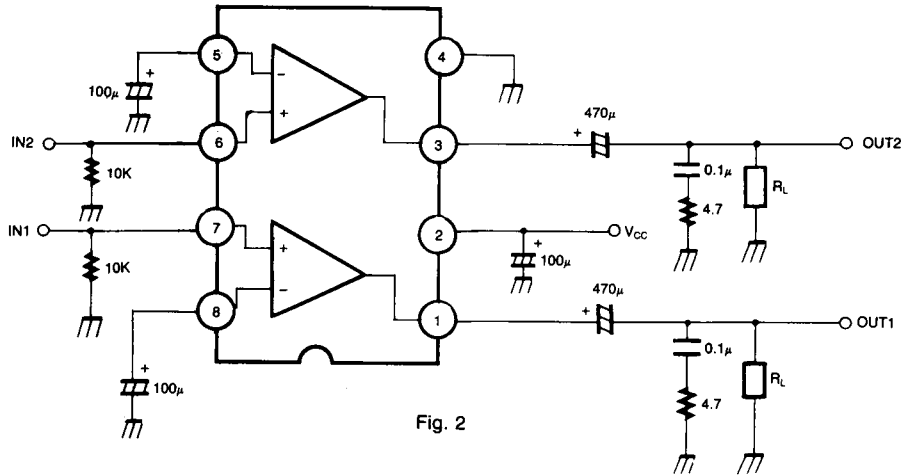
## ELECTRICAL CHARACTERISTICS

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

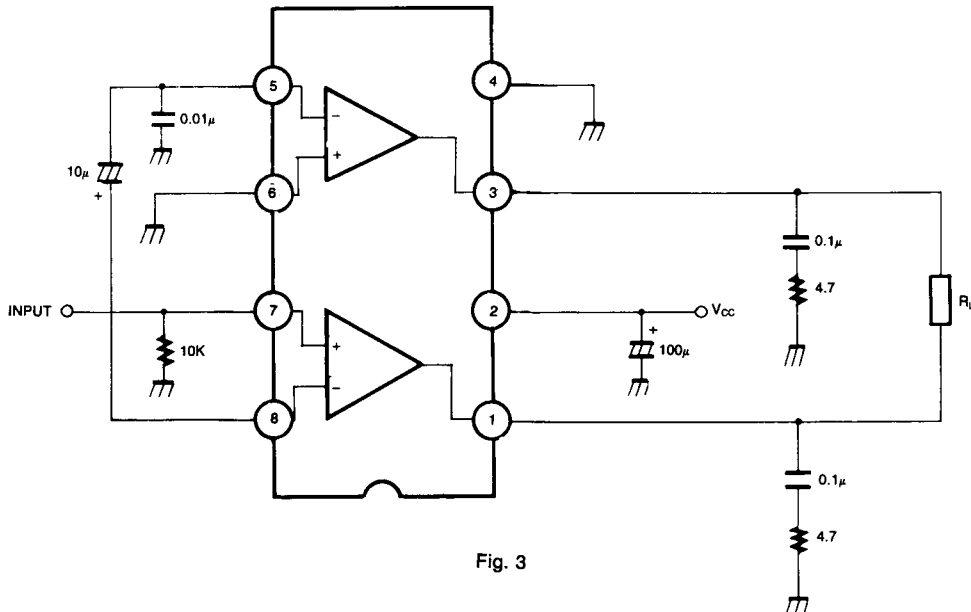
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit	
Operating Voltage	V <sub>CC</sub>		1.8		9	V	
Quiescent Circuit Current	I <sub>CCQ</sub>	V <sub>I</sub> = 0		9		mA	
Closed Loop Voltage Gain	G <sub>VC</sub>	Stereo		40		dB	
		Bridge		40		dB	
Channel Balance	CB	Stereo	- 1	0	1	dB	
Output Power	P <sub>O</sub>	Stereo	V <sub>CC</sub> = 6V, R <sub>L</sub> = 4Ω, THD = 10%	0.4	0.65		W
			V <sub>CC</sub> = 3V, R <sub>L</sub> = 4Ω, THD = 10%		0.11		W
		Bridge	V <sub>CC</sub> = 6V, R <sub>L</sub> = 8Ω, THD = 10%	0.9	1.35		W
			V <sub>CC</sub> = 3V, R <sub>L</sub> = 4Ω, THD = 10%		0.35		W
Total Harmonic Distortion	THD	Stereo, R <sub>L</sub> = 8Ω, P <sub>O</sub> = 0.2W		0.5		%	
		Bridge, R <sub>L</sub> = 8Ω, P <sub>O</sub> = 0.5W		0.5		%	
Ripple Rejection Ratio	RR	Stereo, f = 100Hz, C <sub>3</sub> = 100μF	24	30		dB	
Output Noise Voltage	V <sub>NO</sub>	Stereo, BW (-3dB) = 20Hz ~ 20KHz		0.5	2.0	mV	
Cross Talk	CT	Stereo, f = 1KHz		50		dB	
Input Resistance	R <sub>I</sub>		100			KΩ	

APPLICATION CIRCUIT

1. STEREO



2. BRIDGE



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