

KA2209

DUAL LOW VOLTAGE POWER AMPLIFIER

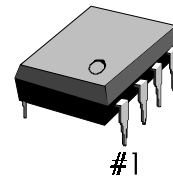
INTRODUCTION

The KA2209 is a monolithic integrated audio amplifier in an 8-pin plastic dualinline package. It is designed for use in portable cassette tape players and radios.

FEATURES

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

8-DIP-300



ORDERING INFORMATION

Device	Package	Operating Temperature
KA2209	8-DIP-300	$-20^{\circ}C \sim +70^{\circ}C$

BLOCK DIAGRAM

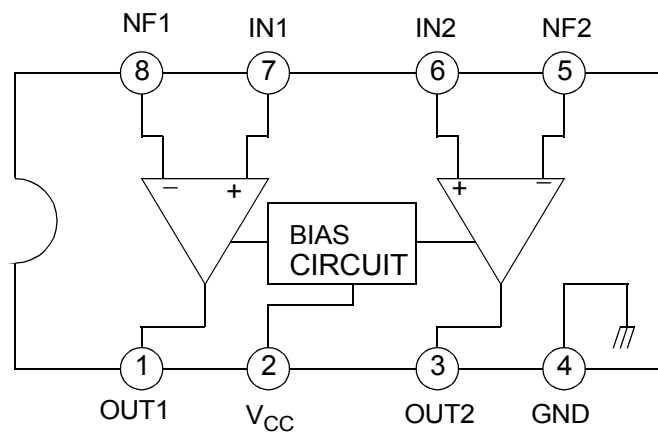


Figure 1.

ABSOLUTE MAXIMUM RATINGS (Ta = 25°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	W
		at $T_{CASE} = 50^{\circ}\text{C}$ 1.4	
Operating Temperature	T_{OPR}	- 20 ~ + 70	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	- 40 ~ +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

(Ta = 25°C, Vcc = 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	C _B	Stereo		— 1	0	1	dB
Output Power	P _O	Stereo	V _{CC} = 6V, R _L = 4Ω, THD=10%	0.4	0.65	—	W
			V _{CC} = 3V, R _L = 4Ω, THD=10%	—	0.11	—	W
		Bridge	V _{CC} = 6V, R _L = 8Ω, THD=10%	0.9	1.35	—	W
			V _{CC} = 3V, R _L = 4Ω, THD=10%	—	0.35	—	W
Total Harmonic Distortion	THD	Stereo, R _L = 8Ω, P _O = 0.2W		—	0.5	—	%
		Bridge, R _L = 8Ω, P _O = 0.5W		—	0.5	—	%
Ripple Rejection Ratio	RR	Stereo, f =100Hz, C ₃ = 100uF		24	30	—	dB
Output Noise Voltage	V _{NO}	Stereo, BW (-3dB) = 20Hz ~ 20kHz		—	0.5	2.0	mV
Cross Talk	CT	Stereo, f = 1kHz		—	50	—	dB
Input Resistance	R _I	—		100	—	—	kΩ

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TEST CIRCUIT 1

STEREO

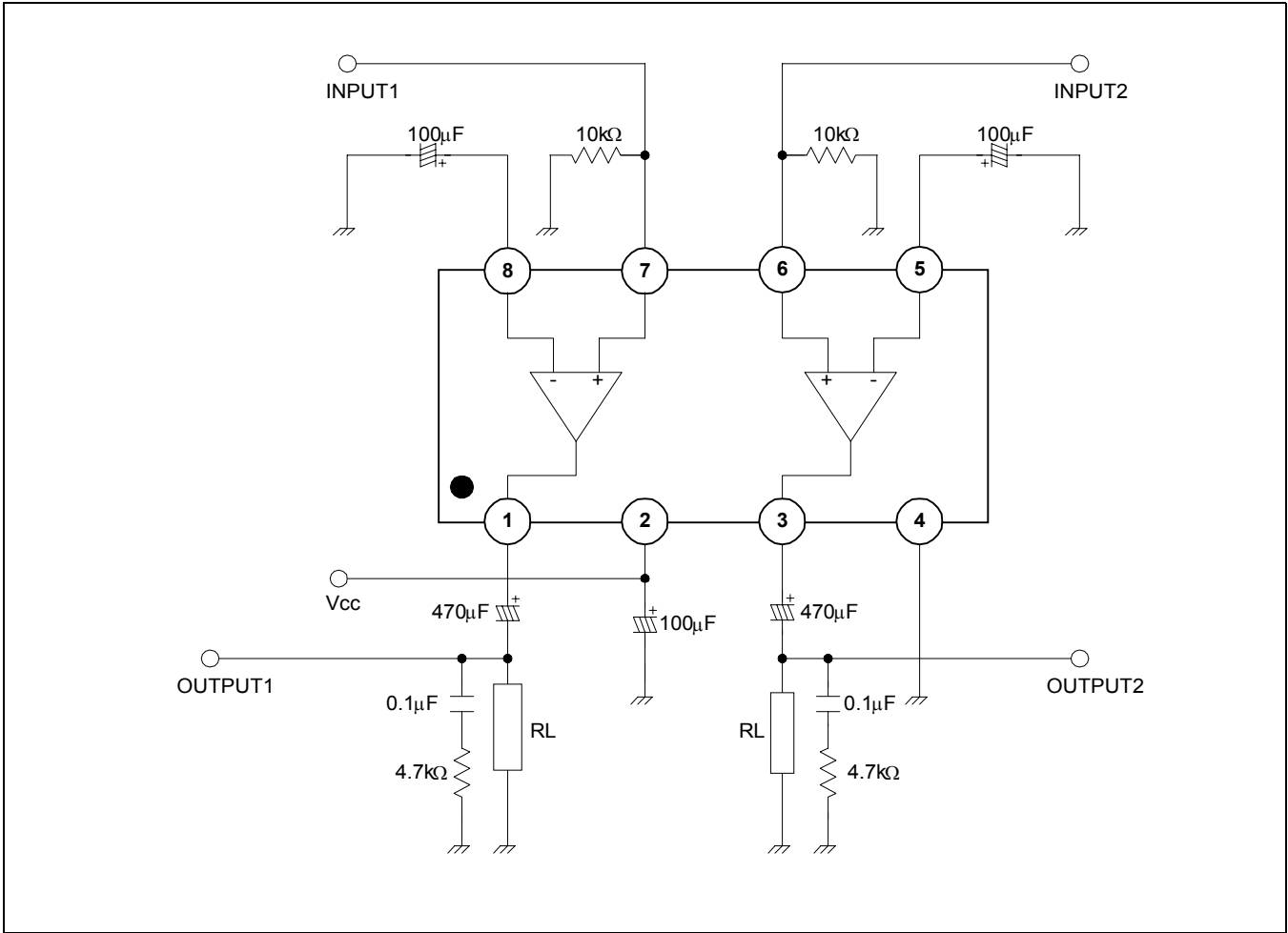


Figure 2.

TEST CIRCUIT 2

BRIDGE

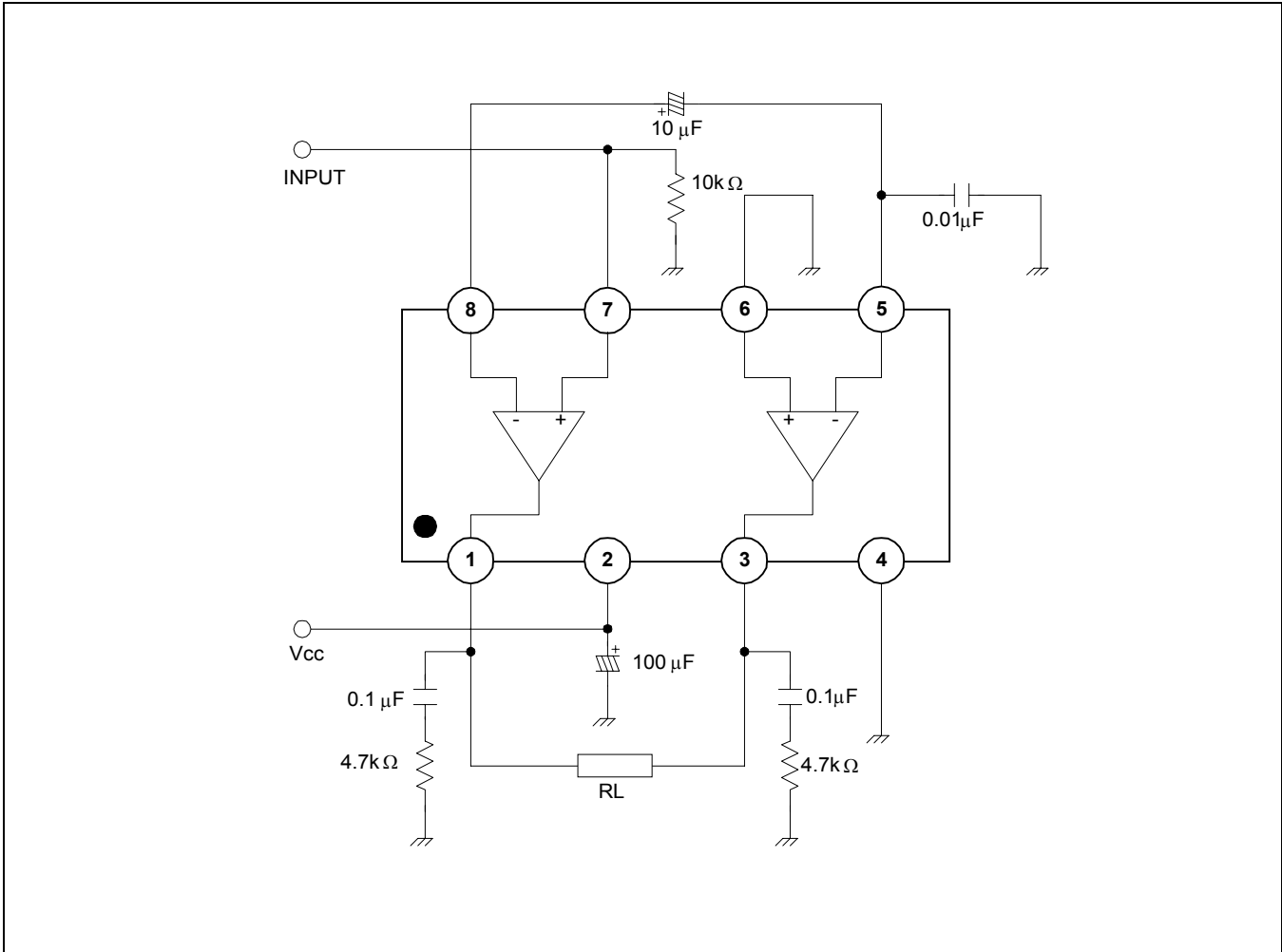


Figure 3.