

# KA2209B

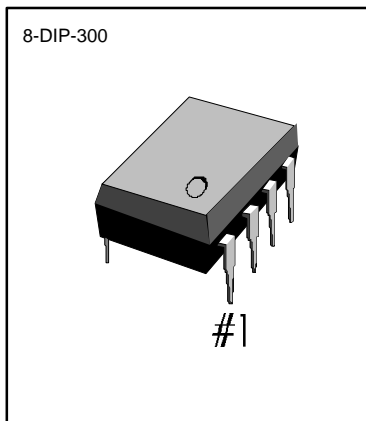
# DUAL LOW VOLTAGE POWER AMP

## INTRODUCTION

The KA2209B is a monolithic integrated audio amplifier in a 8-pin plastic dual in line package. It is designed for portable cassette player and radio.

## FEATURES

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



## ORDERING INFORMATION

Device	Package	Operating Temperature
KA2209B	8-DIP-300	-20°C ~ +70°C

## BLOCK DIAGRAM

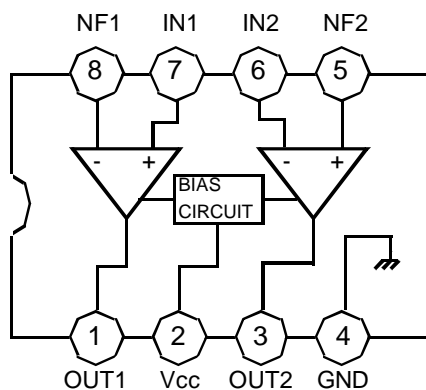


Fig. 1



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

## ABSOLUTE MAXIMUM RATINGS

## 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	C <sub>B</sub>	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> = 100uF	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

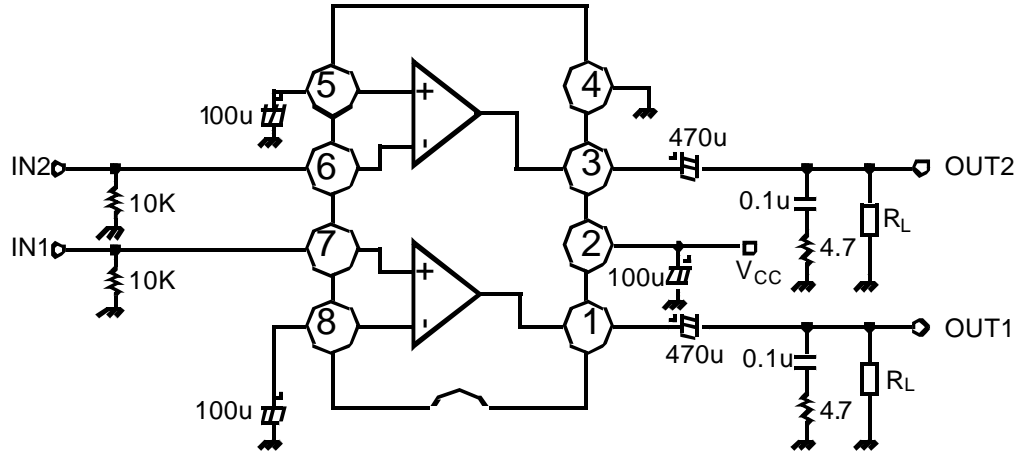


Fig. 2

2. BRIDGE

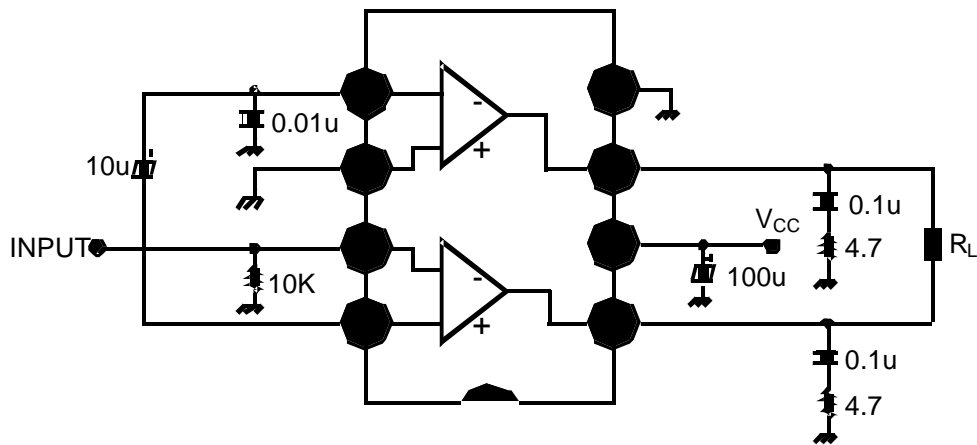


Fig. 3