

INTRODUCTION

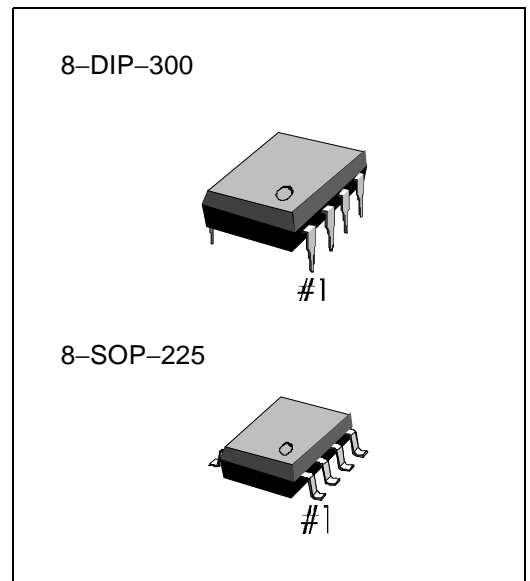
The S1A2209A01 is a monolithic integrated audio amplifier in an 8-pin plastic dualinline package. It is designed for use in portable cassette tape players and radios.

FEATURES

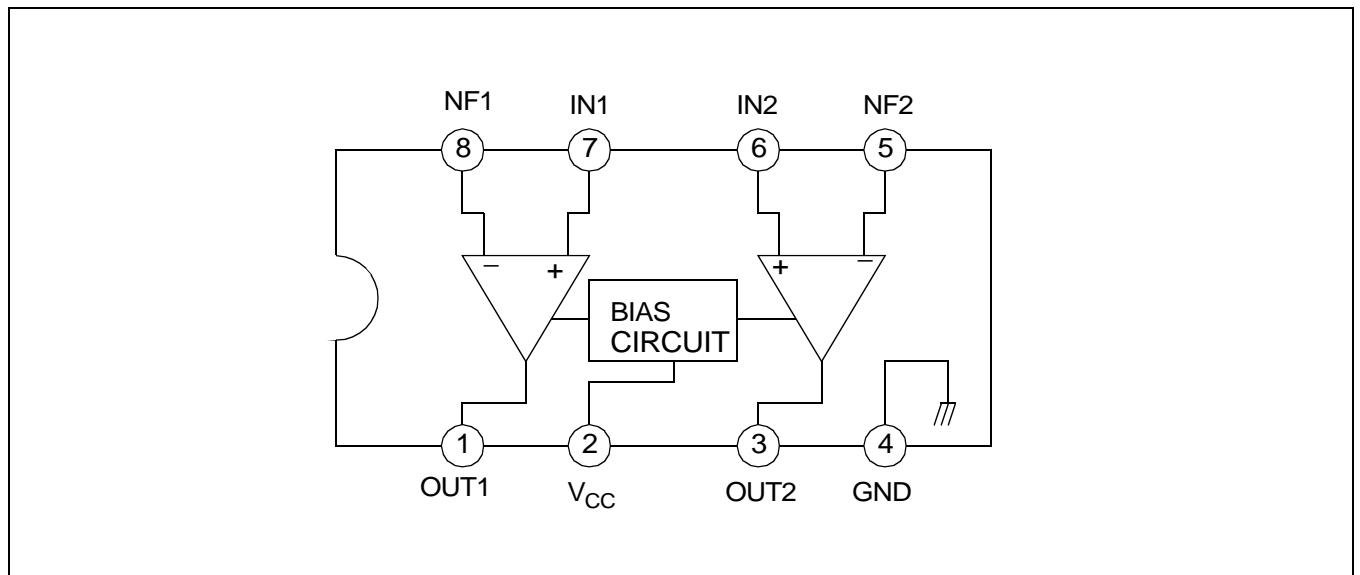
- Wide range of operating supply voltage:
 $V_{CC} = 1.8V - 9V$
- Low crossover distortion
- Low quiescent circuit current
- Bridge/stereo configuration

ORDERING INFORMATION

Device	Package	Operating Temperature
S1A2209A01-D0B0	8-DIP-300	-20°C — +70°C
S1A2209A01-S0B0	8-SOP-225	



BLOCK DIAGRAM



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	$^\circ\text{C}$

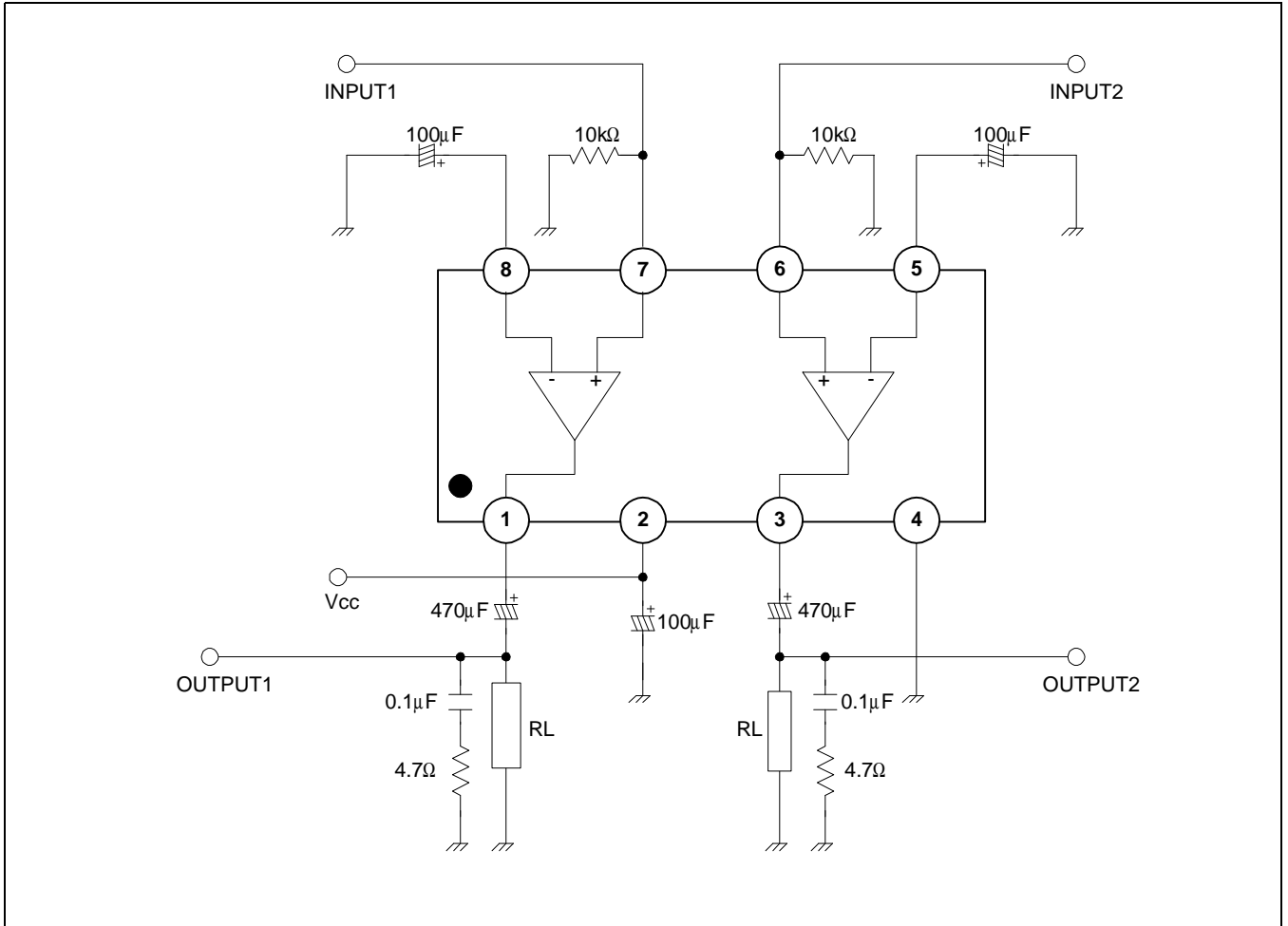
ELECTRICAL CHARACTERISTICS

(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}	$V_I = 0$	—	6	—	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	$V_{CC} = 6V, R_L = 4\Omega, THD=10\%$	0.4	0.65	—	W
			$V_{CC} = 3V, R_L = 4\Omega, THD=10\%$	—	0.11	—	W
		Bridge	$V_{CC} = 6V, R_L = 8\Omega, THD=10\%$	0.9	1.35	—	W
			$V_{CC} = 3V, R_L = 4\Omega, THD=10\%$	—	0.35	—	W
Total Harmonic Distortion	THD	Stereo, $R_L = 8\Omega, P_O = 0.2W$	—	0.3	—	%	
		Bridge, $R_L = 8\Omega, P_O = 0.5W$	—	0.2	—	%	
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	

TEST CIRCUIT 1

STEREO



TEST CIRCUIT 2

BRIDGE

