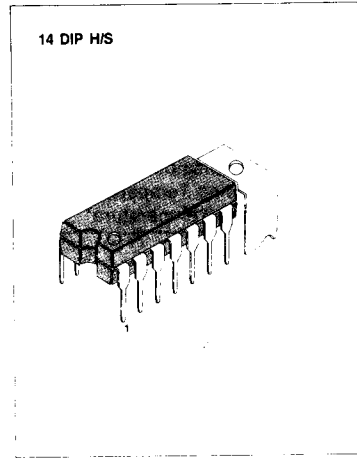


1.2W DUAL POWER AMPLIFIER

The KA2214 is a monolithic integrated dual audio power amplifier in a 14-pin plastic dual in line package. It is designed for portable audio sets.

FEATURES

- Wide operating supply voltage range:  $V_{CC} = 3V - 13V$
- Output power:  $P_O = 1.2W$  at  $9V/8\Omega/THD = 10\%$   
 $P_O = 1.6W$  at  $9V/4\Omega/THD = 10\%$   
 $P_O = 2W$  at  $12V/8\Omega/THD = 10\%$
- Good ripple rejection ratio: 50dB (Typ)
- Low quiescent circuit current: 10mA ( $V_{CC} = 9V$ )
- Minimum number of external parts required



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ORDERING INFORMATION

Device	Package	Operating Temperature
KA2214	14 DIP H/S	-20°C ~ +70°C

BLOCK DIAGRAM

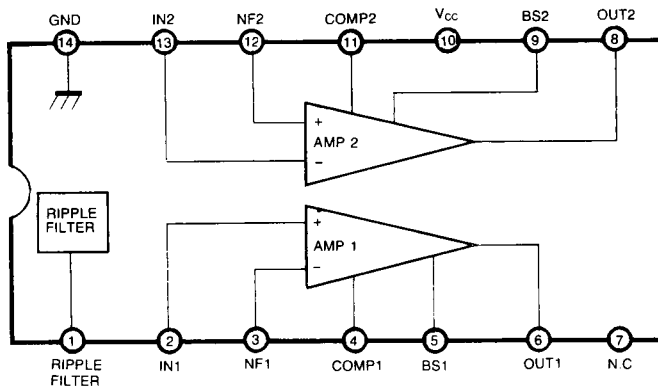


Fig. 1.

## ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage (No Signal)	V <sub>CC</sub>	18	V
Supply Voltage (Operating)	V <sub>CC</sub>	16	V
Power Dissipation	P <sub>D</sub>	2.4	W
Operating Temperature	T <sub>OPR</sub>	- 20 ~ + 70	°C
Storage Temperature	T <sub>STG</sub>	- 40 ~ + 150	°C

## ELECTRICAL CHARACTERISTICS

(Ta = 25°C, V<sub>CC</sub> = 9V, R<sub>F</sub> = 33Ω, f = 1KHz, R<sub>L</sub> = 8Ω, R<sub>G</sub> = 600Ω, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	I <sub>CCQ</sub>	V <sub>I</sub> = 0		10		mA
Voltage Gain	G <sub>V1</sub>	P <sub>O</sub> = 0.25W, R <sub>F</sub> = 33Ω		44		dB
	G <sub>V2</sub>	P <sub>O</sub> = 0.25W, R <sub>F</sub> = 120Ω		34		dB
Output Power	P <sub>O1</sub>	V <sub>CC</sub> = 12V, R <sub>L</sub> = 8Ω, THD = 10%		2		W
	P <sub>O2</sub>	V <sub>CC</sub> = 9V, R <sub>L</sub> = 4Ω, THD = 10%		1.6		W
	P <sub>O3</sub>	V <sub>CC</sub> = 9V, R <sub>L</sub> = 8Ω, THD = 10%	0.9	1.2		W
	P <sub>O4</sub>	V <sub>CC</sub> = 6V, R <sub>L</sub> = 4Ω, THD = 10%		0.7		W
	P <sub>O5</sub>	V <sub>CC</sub> = 6V, R <sub>L</sub> = 8Ω, THD = 10%		0.5		W
	P <sub>O6</sub>	V <sub>CC</sub> = 4.5V, R <sub>L</sub> = 32Ω, THD = 10%		50		mW
Total Harmonic Distortion	THD <sub>1</sub>	P <sub>O</sub> = 0.5W, R <sub>F</sub> = 33Ω		0.8		%
	THD <sub>2</sub>	P <sub>O</sub> = 0.5W, R <sub>F</sub> = 120Ω		0.4		%
Output Noise Voltage	V <sub>NO</sub>	R <sub>G</sub> = 10KΩ, BW ( - 3dB) = 20Hz ~ 20KHz		0.6		mV
Ripple Rejection Ratio	RR	R <sub>G</sub> = 0, f = 120Hz, V <sub>R</sub> = 0.3V		50		dB
Cross Talk	CT	R <sub>G</sub> = 0, P <sub>O</sub> = 0.25W		55		dB
Channel Balance	CB	P <sub>O</sub> = 0.25W	- 2	0	2	dB
Input Resistance	R <sub>I</sub>			5		MΩ

APPLICATION CIRCUIT

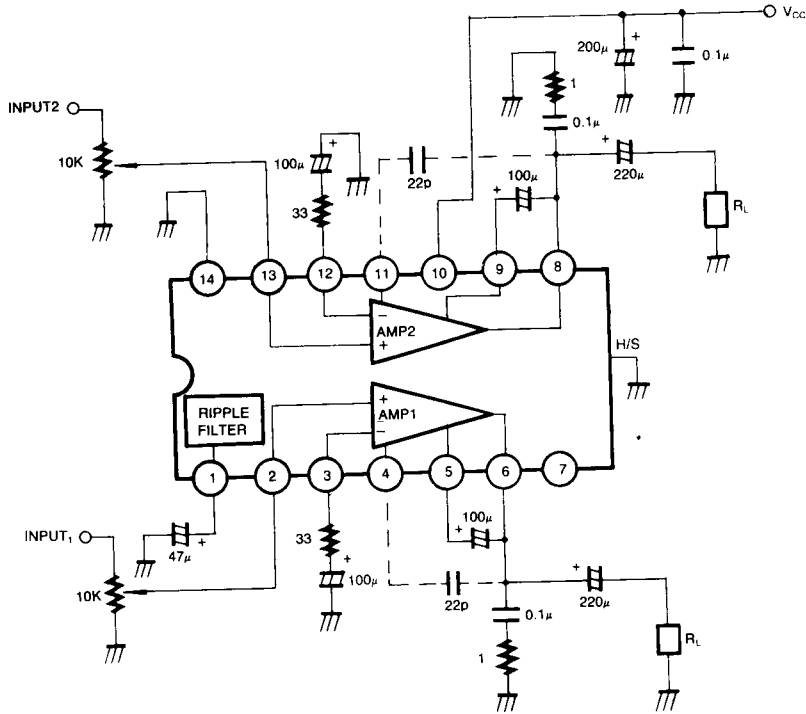


Fig. 2

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