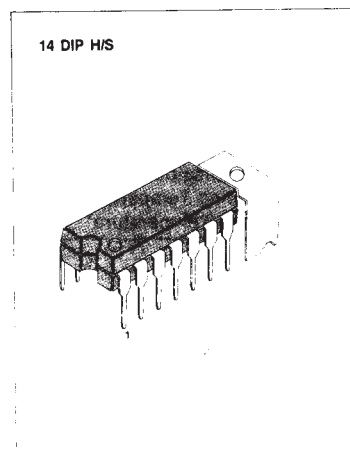


1.2W DUAL POWER AMPLIFIER

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.



3

FEATURES

- Wide operating supply voltage range: $V_{CC} = 3V \sim 13V$
- 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

ORDERING INFORMATION

Device	Package	Operating Temperature
KA2214	14 DIP H/S	$-20^{\circ}C \sim +70^{\circ}C$

BLOCK DIAGRAM

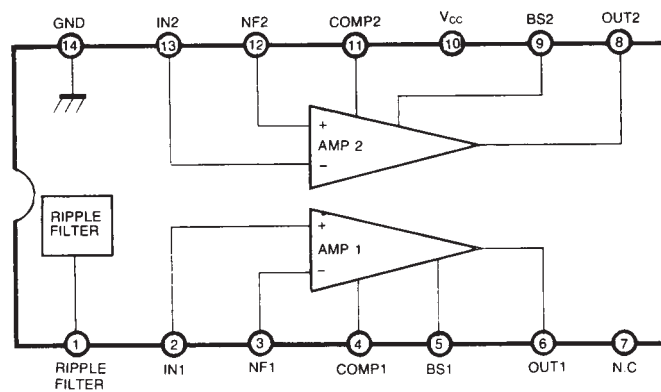


Fig. 1.

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage (No Signal)	V _{CC}	18	V
Supply Voltage (Operating)	V _{CC}	16	V
Power Dissipation	P _D	2.4	W
Operating Temperature	T _{OPR}	- 20 ~ + 70	°C
Storage Temperature	T _{STG}	- 40 ~ + 150	°C

ELECTRICAL CHARACTERISTICS

(Ta = 25°C, V_{CC} = 9V, R_F = 33Ω, f = 1KHz, R_L = 8Ω, R_G = 600Ω, unless otherwise specified)

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

APPLICATION CIRCUIT

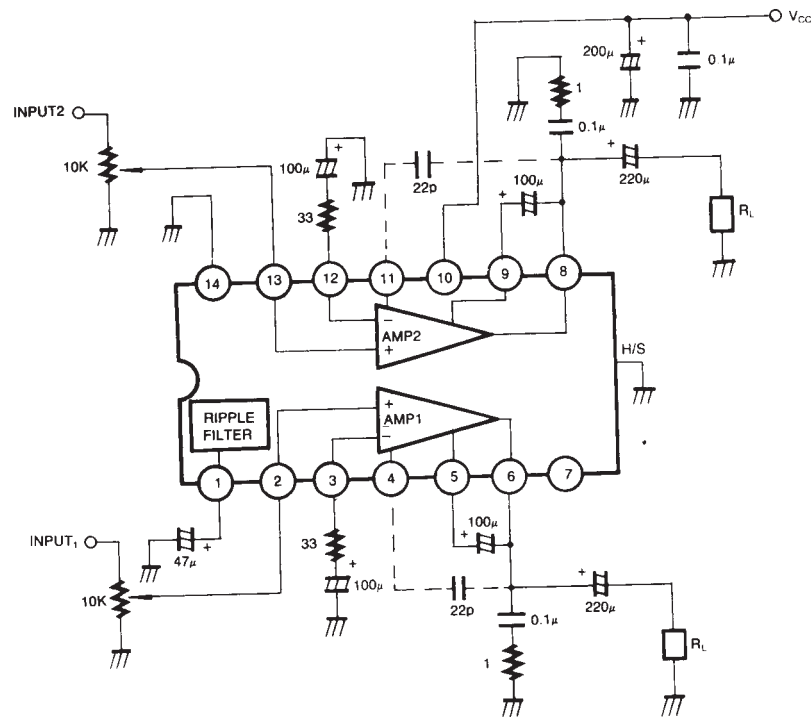


Fig. 2