

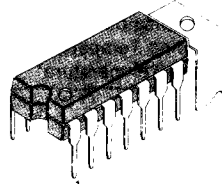
1.2W DUAL POWER AMPLIFIER

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: $V_{CC} = 3V \sim 13V$
- 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

14 DIP H/S



ORDERING INFORMATION

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

BLOCK DIAGRAM

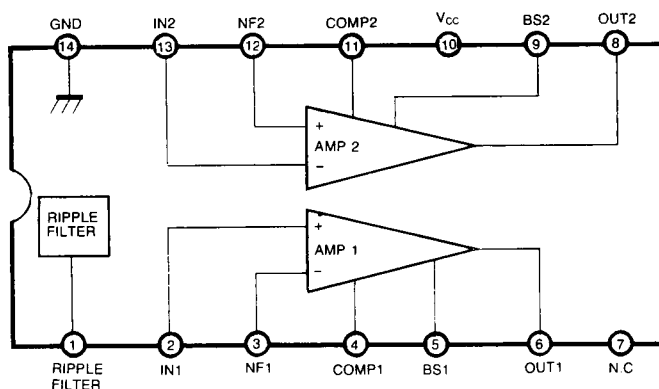


Fig. 1.

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}	$P_O = 0.25W$, $R_F = 33\Omega$		44		dB
	G_{V2}	$P_O = 0.25W$, $R_F = 120\Omega$		34		dB
Output Power	P_{o1}	$V_{CC} = 12V$, $R_L = 8\Omega$, THD = 10%		2		W
	P_{o2}	$V_{CC} = 9V$, $R_L = 4\Omega$, THD = 10%		1.6		W
	P_{o3}	$V_{CC} = 9V$, $R_L = 8\Omega$, THD = 10%	0.9	1.2		W
	P_{o4}	$V_{CC} = 6V$, $R_L = 4\Omega$, THD = 10%		0.7		W
	P_{o5}	$V_{CC} = 6V$, $R_L = 8\Omega$, THD = 10%		0.5		W
	P_{o6}	$V_{CC} = 4.5V$, $R_L = 32\Omega$, THD = 10%		50		mW
Total Harmonic Distortion	THD ₁	$P_O = 0.5W$, $R_F = 33\Omega$		0.8		%
	THD ₂	$P_O = 0.5W$, $R_F = 120\Omega$		0.4		%
Output Noise Voltage	V_{NO}	$R_G = 10K\Omega$, 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

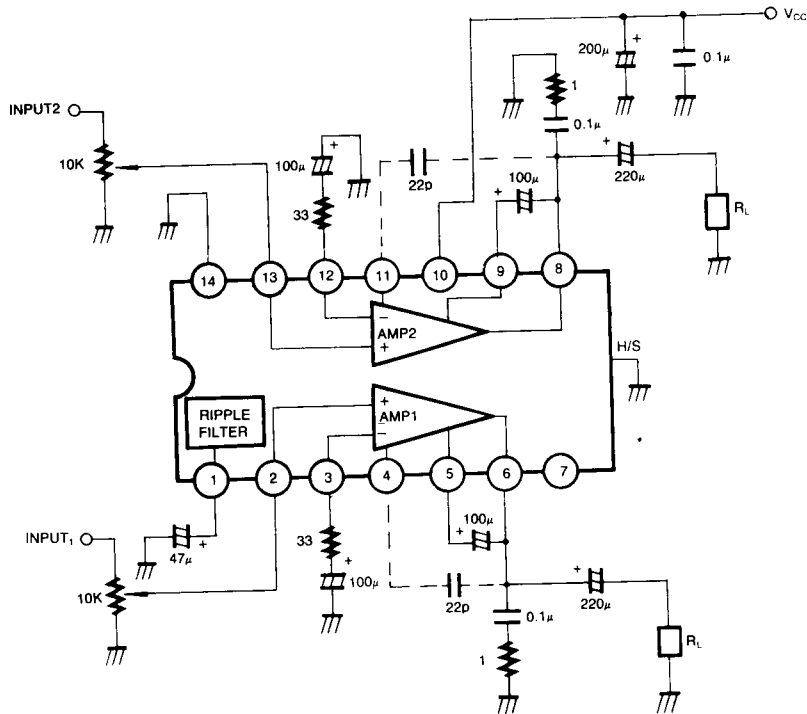


Fig. 2