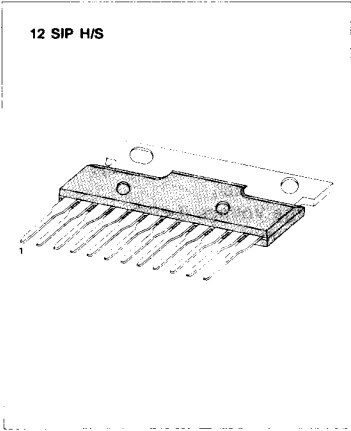


**5.5W DUAL POWER AMPLIFIER**

The KA2210 is a monolithic integrated circuit consisting of a 2-channel power amplifier. It is suitable for stereo and bridge amplifier application in car stereos.



**FEATURES**

- 2-channel amplifier: 5.5W × 2 (Typ).
- Minimum number of external parts required.
- Small shock noise at the time of power on/off and good starting balance.
- High ripple rejection ratio: 46dB (Typ).
- Good channel separation.
- Small residual noise. (Rg=0)
- Include various kinds of protector;  
Thermal protector.  
Surge and over-voltage protector.  
V<sub>CC</sub> and output short protector.
- Connect H/S to GND

**BLOCK DIAGRAM**

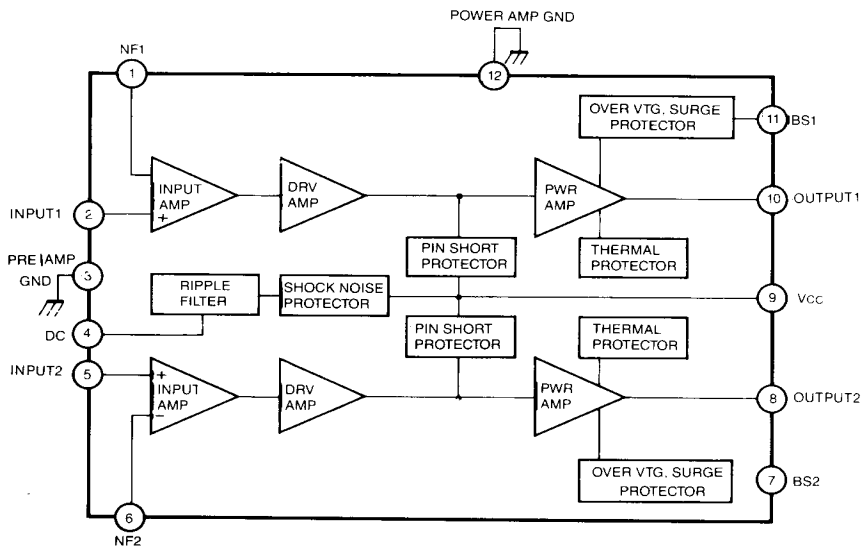


Fig. 1

**ORDERING INFORMATION**

Device	Package	Operating Temperature
KA2210	12 SIP H/S	- 20 ~ + 70°C
KA2210G	PELLET	

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

Characteristic	Symbol	Value	Unit
Maximum Supply Voltage (Quiescent)	V <sub>CC</sub> (max 1)	25	V
Maximum Supply Voltage (with Signal)	V <sub>CC</sub> (max 2)	18	V
Surge Voltage (t ≤ 0.2 sec)	V <sub>CC</sub> (Surge)	50	V
Maximum Output Current (1-Channel)	I <sub>O</sub> (peak)	3.5	A
Power Dissipation	P <sub>d</sub> (max)	15	W
Operating Temperature	T <sub>opr</sub>	-20 ~ +70	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +150	°C

## ELECTRICAL CHARACTERISTICS

(T<sub>a</sub> = 25°C, V<sub>CC</sub> = 13.2V, R<sub>L</sub> = 4Ω, f = 1KHz, R<sub>g</sub> = 600Ω, 100 × 100 × 1.5mm<sup>3</sup> Al H/S, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Operating Supply Voltage	V <sub>CC</sub>		10	13.2	16	V
Quiescent Circuit Current	I <sub>CC</sub>	V <sub>i</sub> = 0		75	150	mA
Output Power	P <sub>O</sub>	THD = 10%, Stereo	5.0	5.5		W
Voltage Gain	A <sub>V</sub>	P <sub>O</sub> = 1W	49.5	51.5	53.5	dB
Total Harmonic Distortion	THD	P <sub>O</sub> = 1W		0.15	1.0	%
Input Resistance	R <sub>i</sub>			30		KΩ
Output Noise Voltage	V <sub>NO</sub>	R <sub>g</sub> = 0, BW(-3dB) = 20Hz ~ 20KHz		0.6	1.0	mV
		R <sub>g</sub> = 10KΩ, BW(-3dB) = 20Hz ~ 20KHz		1.0	2.0	mV
Ripple Rejection Ratio	RR	R <sub>g</sub> = 0, V <sub>r</sub> = 200mV, f = 100Hz		46		dB
Channel Separation	Sep	R <sub>g</sub> = 10KΩ, V <sub>o</sub> = 0dBm	45	55		dB

TYPICAL APPLICATION CIRCUIT: STEREO

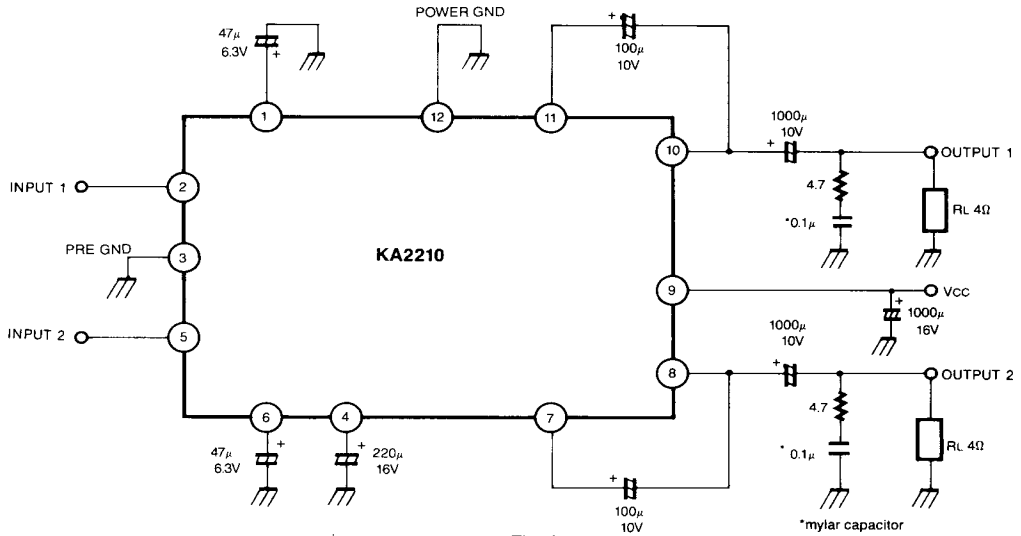


Fig. 2

\*mylar capacitor

APPLICATION CIRCUIT: BRIDGE

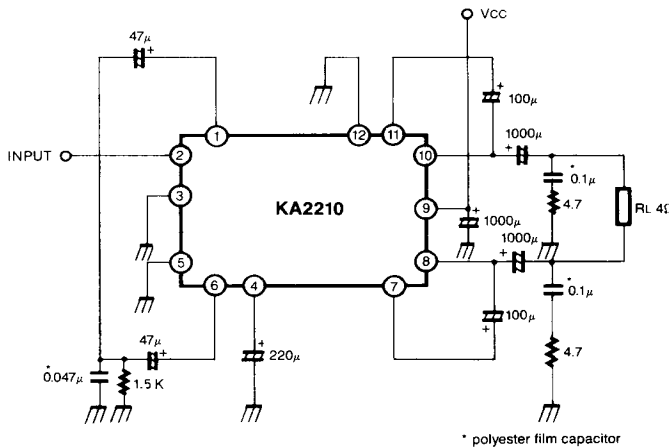
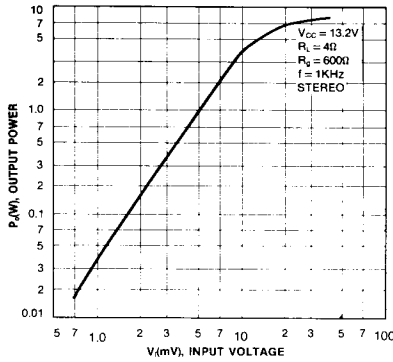


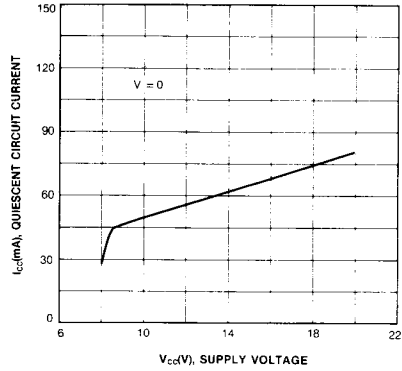
Fig. 3

\* polyester film capacitor

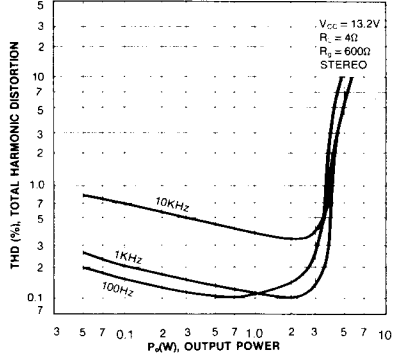
OUTPUT POWER-INPUT VOLTAGE



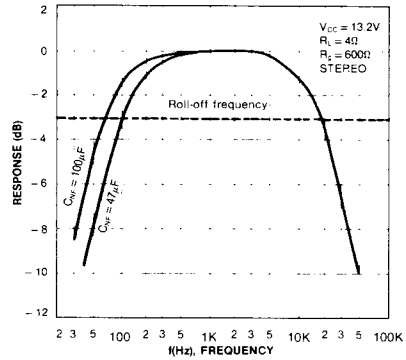
QUIESCENT CIRCUIT CURRENT-SUPPLY VOLTAGE



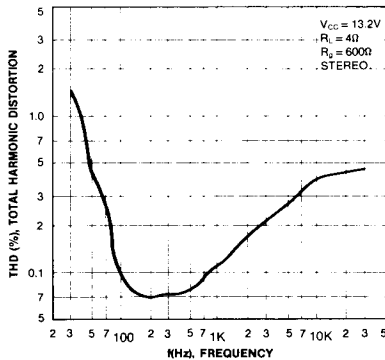
TOTAL HARMONIC DISTORTION-OUTPUT POWER



FREQUENCY RESPONSE



TOTAL HARMONIC DISTORTION-FREQUENCY



OUTPUT POWER-SUPPLY VOLTAGE

