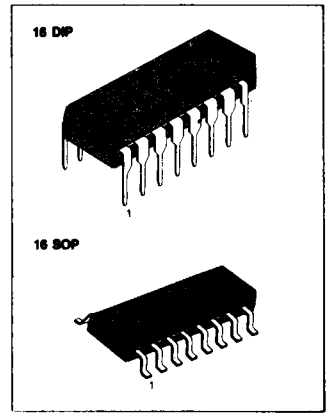
DUAL PREAMPLIFIER FOR 3V USING

The KA2225 is a monolithic integrated circuit consisting of a dual equalizer amplifier, and it is suitable for 3V stereo radio cassettes.



FEATURES

- **High open loop gain: 85dB (Typ) (V_{CC} = 3V, f = 1kHz).**
- **Not necessary the input coupling capacitors.**
- **Operating supply voltage range: V_{CC} = 1.6V ~ 5V.**
- **Good channel separation: 60dB (Typ).**

ORDERING INFORMATION

Device	Package	Operating Temperature
KA2225	16 DIP	-20°C ~ +70°C
KA2225D	16 SOP	

BLOCK DIAGRAM

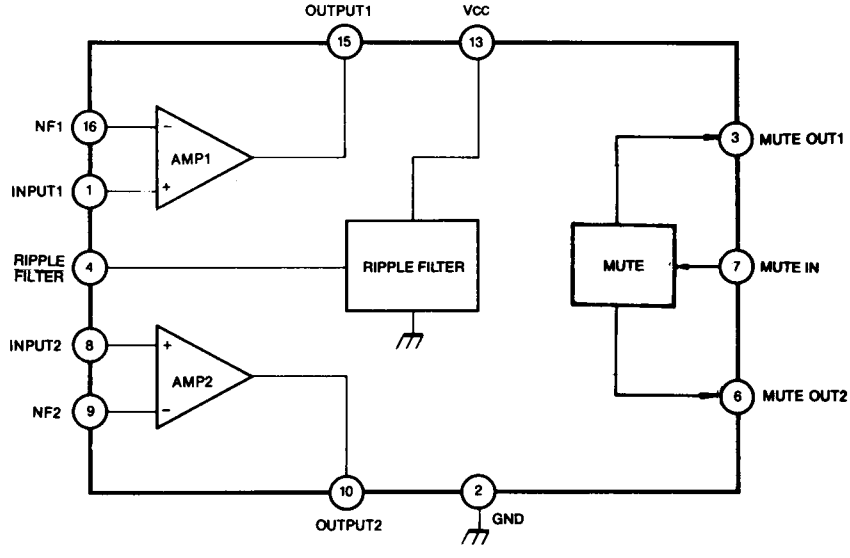


Fig. 1

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic		Symbol	Value	Unit
Supply Voltage		V_{CC}	7	V
Power Dissipation	KA2225	P_D	750	mW
	KA2225D		350	
Operating Temperature		T_{OPR}	−20 ~ +70	°C
Storage Temperature		T_{STG}	−40 ~ +125	°C

ELECTRICAL CHARACTERISTICS

(T_a = 25°C, V_{CC} = 3V, f = 1KHz, unless otherwise specified)

Characteristic		Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current		I_{CCQ}	V_I = 0		2	3.4	mA
Voltage Gain	Open Loop	G_{VO}		70	85		dB
	Closed Loop	G_{VC}			40		dB
Output Voltage		V_O	THD=1%	0.5	0.8		V
Total Harmonic Distortion		THD	V_O = 0.1V,		0.07	0.5	%
Output Noise Voltage		V_{NO}	R_G = 2.2KΩ, G_V = 40dB BW(−3dB) = 50Hz ~ 20KHz		0.14	0.22	mV
Cross Talk		CT	R_G = 600Ω, V_O = −10dBv		60		dB
Muting Attenuation		ATT_{MUTE}	V_{MUTE} = 1V		43		dB
Input Resistance		R_I		20	30		KΩ

TEST CIRCUIT

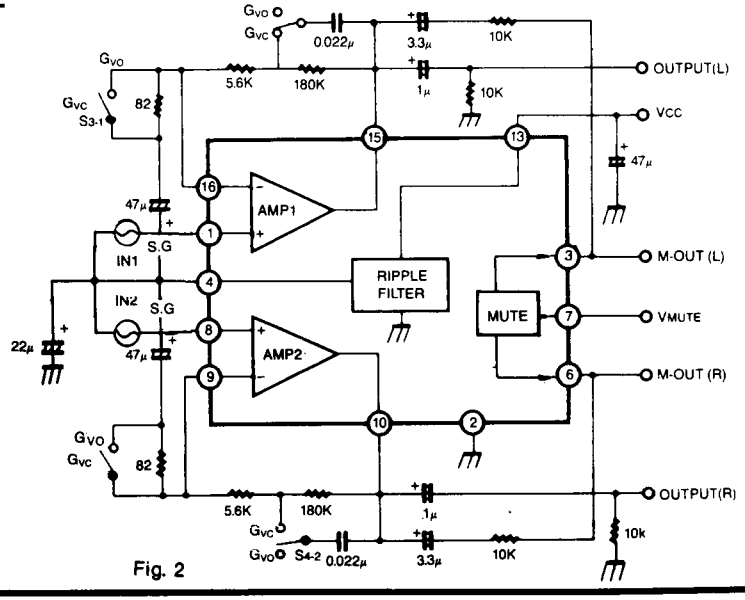


Fig. 2

APPLICATION CIRCUIT

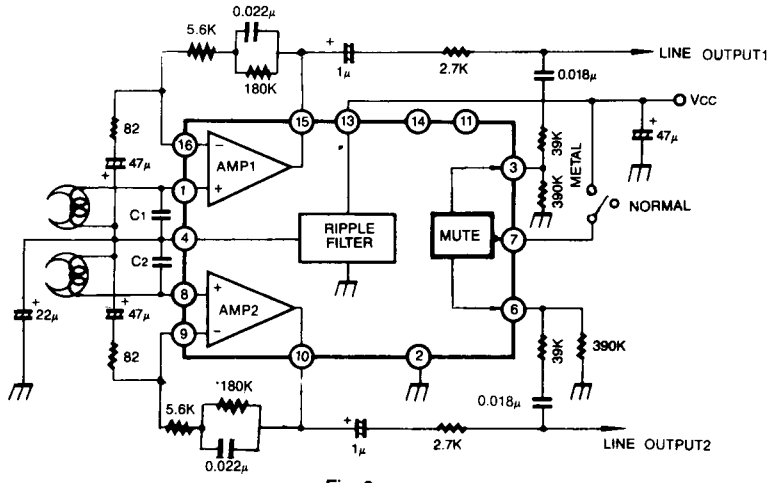


Fig. 3

- Capacitor C_1 and C_2 may be required to prevent instability caused by the pattern layout or interference of external high frequency signals.