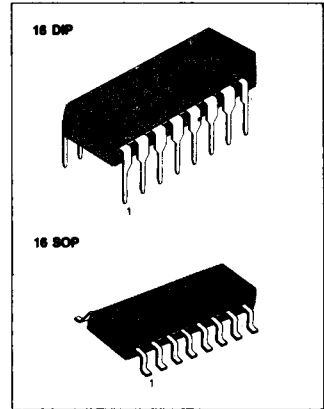


DUAL PREAMPLIFIER FOR 3V USING

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: $V_{CC}=1.6V \sim 5V$.
- Good channel separation: 60dB (Typ).



ORDERING INFORMATION

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

BLOCK DIAGRAM

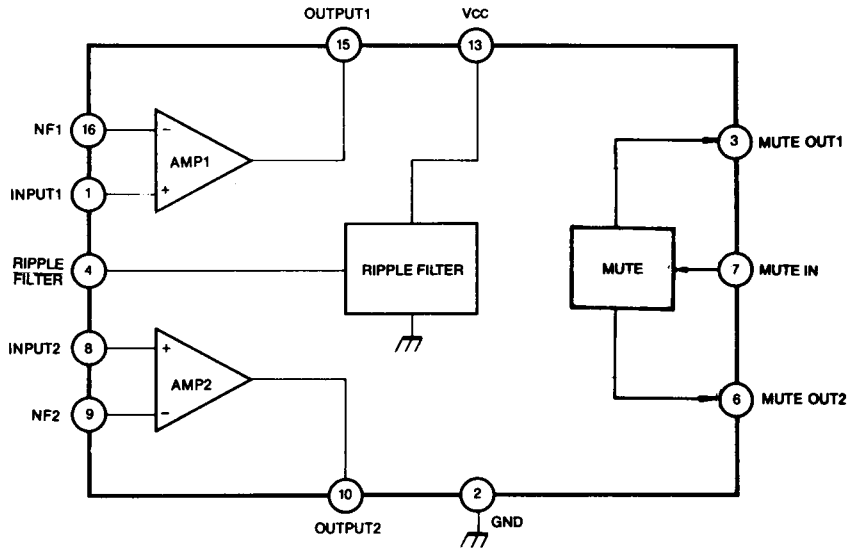


Fig. 1

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

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

Characteristic		Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current		I _{CCO}	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

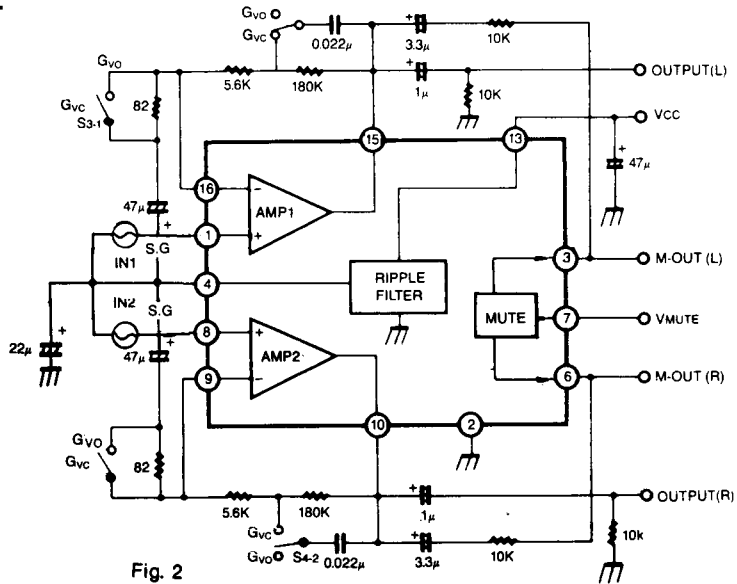


Fig. 2

APPLICATION CIRCUIT

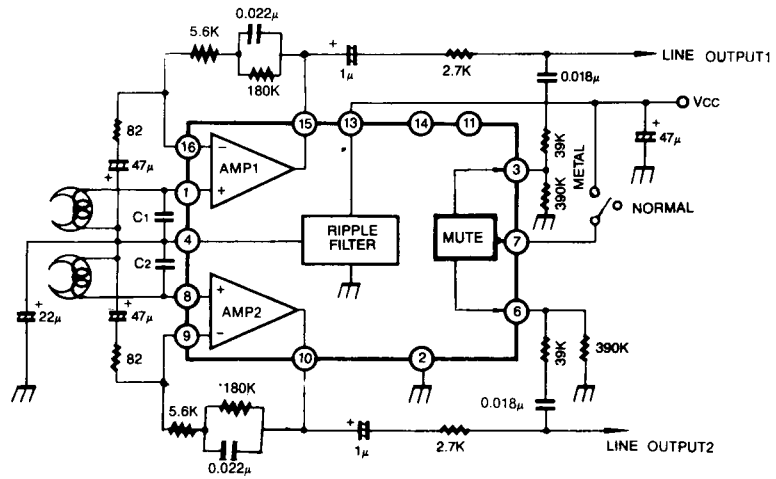


Fig. 3

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