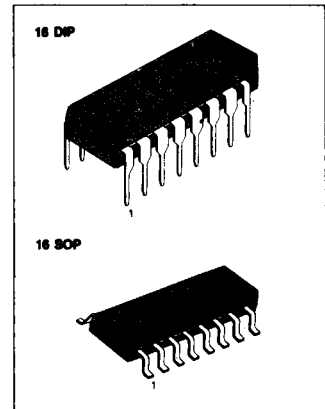


DUAL PREAMPLIFIER FOR 3V USING

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	

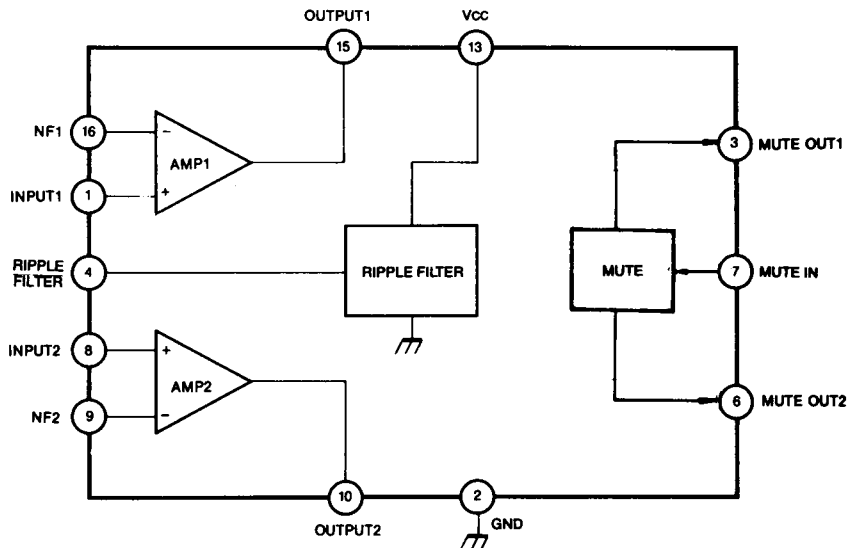
BLOCK DIAGRAM

Fig. 1

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Characteristic		Symbol	Value	Unit
Supply Voltage		V_{CC}	7	V
Power Dissipation	KA2225	P_D	750	mW
	KA2225D		350	
Operating Temperature		T_{OPR}	$-20 \sim +70$	$^\circ\text{C}$
Storage Temperature		T_{STG}	$-40 \sim +125$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

($T_a = 25^\circ\text{C}$, $V_{CC} = 3\text{V}$, $f = 1\text{KHz}$, 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	$V_O = 0.1\text{V}$,		0.07	0.5	%
Output Noise Voltage		V_{NO}	$R_G = 2.2\text{K}\Omega$, $G_V = 40\text{dB}$ $BW(-3\text{dB}) = 50\text{Hz} \sim 20\text{KHz}$		0.14	0.22	mV
Cross Talk		CT	$R_G = 600\Omega$, $V_O = -10\text{dBV}$		60		dB
Muting Attenuation		ATT_{MUTE}	$V_{MUTE} = 1\text{V}$		43		dB
Input Resistance		R_i		20	30		$\text{K}\Omega$

TEST CIRCUIT

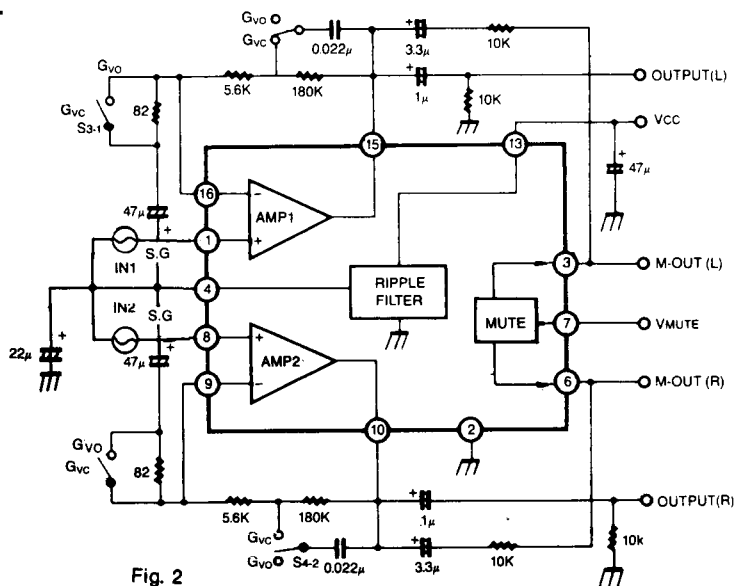


Fig. 2

APPLICATION CIRCUIT

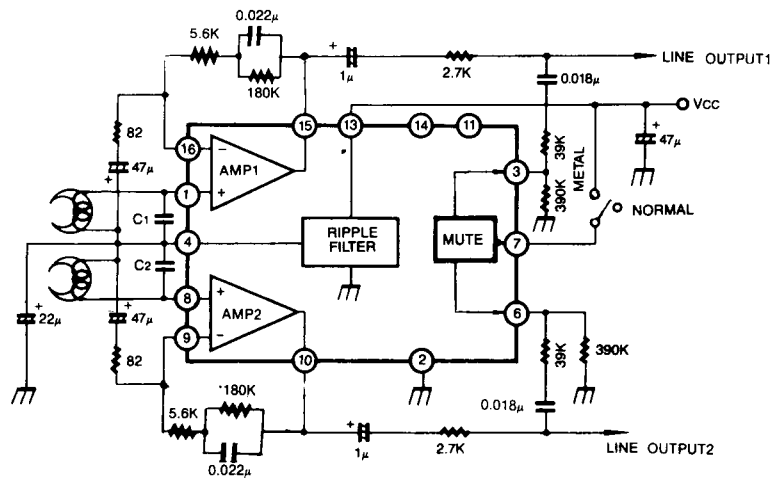


Fig. 3

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