

KA22062 4.5W 双通道功率放大器

简要说明

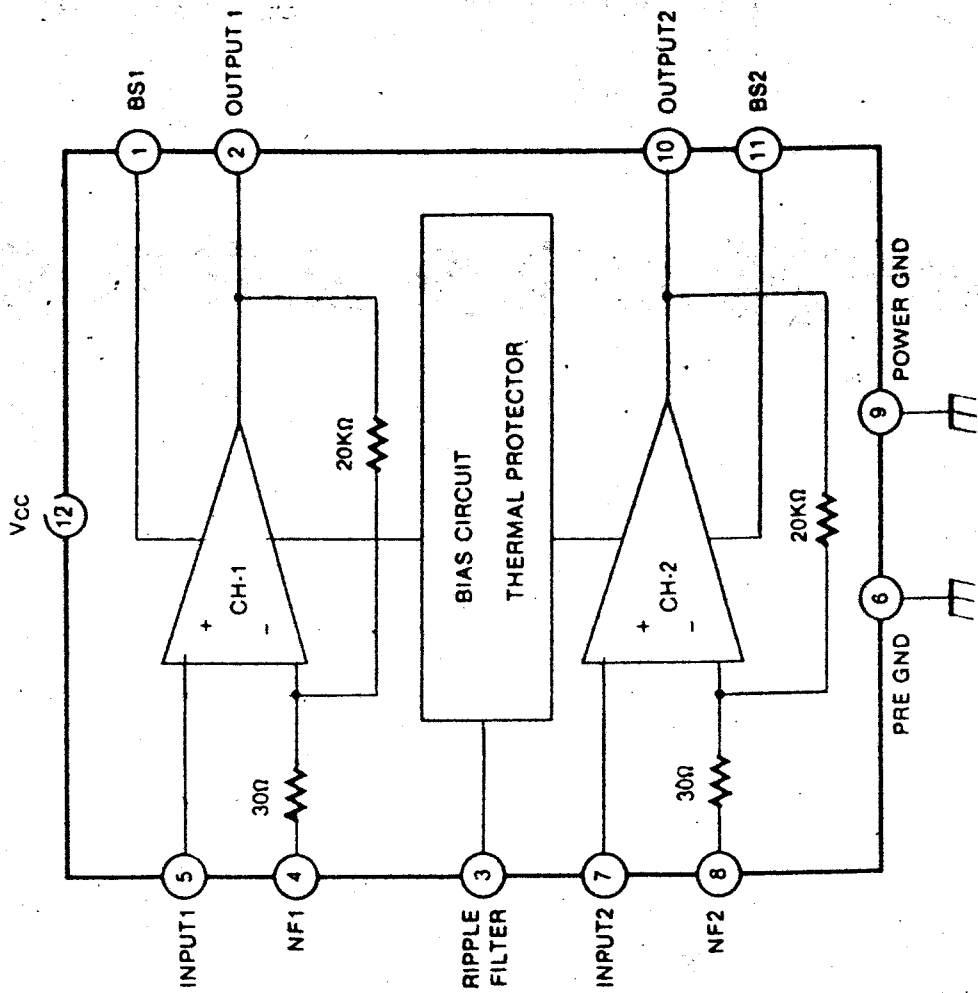
KA22062 是一种工作电压范围为 6~15V 的双通道功率放大器电路, 具有静态电流小、输出功率大、电流通断时噪声小、外接元件少以及内含过热保护电路等特点。该电路适用于便携式立体声收录机等音响装置中。

电路采用 12 引线单列直插塑料封装 (12SIP H/S)。

极限值 ($T_A = 25^\circ\text{C}$)

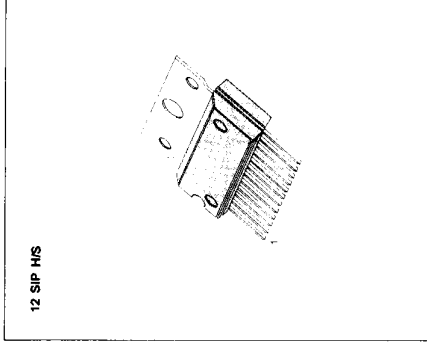
电源电压	16V
输出峰值电流 (一个通道)	2.5A
功耗	12.5W
工作温度	-20~+70 $^\circ\text{C}$
贮存温度	-40~+150 $^\circ\text{C}$

功能框图



电特性 ($T_A = 25^\circ\text{C}$, $V_{CC} = 9\text{V}$, $R_L = 4\Omega$, $f = 1\text{kHz}$, $R_g = 600\Omega$)

参 数	符 号	测试条件	最 小	典 型	最 大	单 位
静态电源电流	I_{CC}	$V_1 = 0$		19	45	mA
输出功率	P_o	THD = 10%	2.0	2.5		W
		THD = 10%, $V_{CC} = 12\text{V}$		4.5		W
全谐波失真度	THD	$P_o = 1\text{W}$		0.2	1.0	%
闭环电压增益	A_v	$R_F = 82\Omega$, $V_o = 0.775\text{V}$	43	45	47	dB
		$R_F = 0\Omega$, $V_o = 0.775\text{V}$		56		dB
输入电阻	R_i			30		$k\Omega$
输出噪声电压	V_{NO}	$R_g = 10k\Omega$, BW (-3dB) = 20Hz ~ 20kHz		0.3	1.0	mV
电源纹波抑制比	RR	$R_g = 600\Omega$, $f = 120\text{Hz}$, $V_R = 300\text{mV}$		54		dB
串音	CT	$R_g = 10k\Omega$, $V_o = 0\text{dBm}$		60		dB
输出失调电压	V_5, V_7			20	60	mV



4.5W DUAL POWER AMPLIFIER

The KA22062 is a monolithic integrated circuit consisting of a dual power amplifier. It is suitable for portable radio cassette recorders.

FEATURES

- Dual power amplifier: 4.5W x 2 (Typ)
- Low quiescent circuit current; $I_{cc} = 19\text{mA}$ (Typ)
- High output
- Small pop noise at the power on
- Minimum external parts required
- Supply voltage range: $V_{cc} = 6\text{V} - 15\text{V}$
- Including the thermal protection circuit
- Connect H/S to GND

BLOCK DIAGRAM

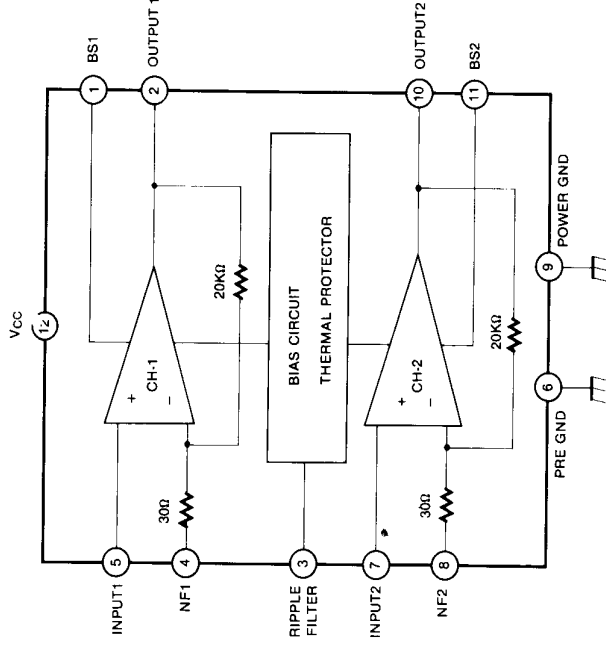


Fig. 1

ORDERING INFORMATION

Device	Package	Operating Temperature
KA22062S	12 SIP H/S	-20 ~ +70°C
KA22062G	PELLET	

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V _{CC}	16	V
Output Current (1CH)	I _o (peak)	2.5	A
Power Dissipation	P _d	12.5	W
Operating Temperature	T _{opr}	-20 ~ +70	°C
Storage Temperature	T _{sig}	-40 ~ +150	°C

ELECTRICAL CHARACTERISTICS

(T_a = 25°C, V_{CC} = 9V, R_L = 4Ω, f = 1KHz, R_g = 600Ω, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circuit Current	I _{CC}	V _i = 0		19	45	mA
Output Power	P _o	THD = 10%	2.0	2.5		W
		THD = 10%, V _{CC} = 12V		4.5		W
Total Harmonic Distortion	THD	P _o = 1W		0.2	1.0	%
Voltage Gain (Closed Loop)	A _v	R _f = 82Ω, V _o = 0.775V	43	45	47	dB
		R _f = 0Ω, V _o = 0.775V		56		dB
Input Resistance	R _i			30		KΩ
Output Noise Voltage	V _{NO}	R _g = 10KΩ, BW (-3 dB) = 20Hz ~ 20KHz		0.3	1.0	mV
Ripple Rejection Ratio	RR	R _g = 600Ω, f = 120Hz, V _i = 300mV		54		dB
Cross Talk	CT	R _g = 10KΩ, V _o = 0dBm		60		dB
Input Offset Voltage	V _o , V _i			20	60	mV

TEST CIRCUIT

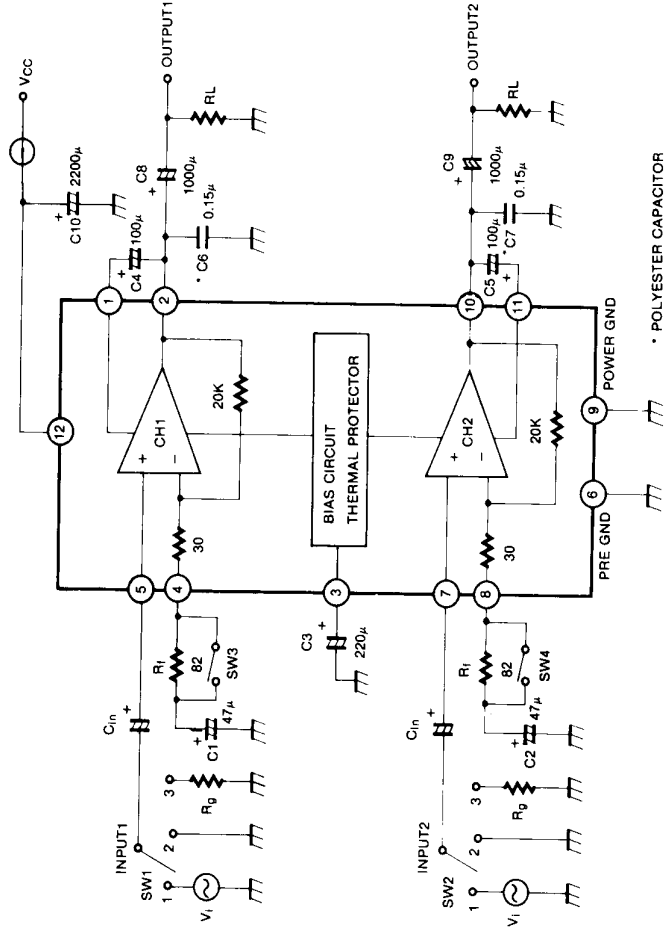
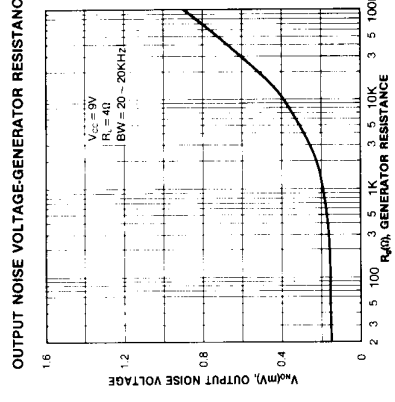
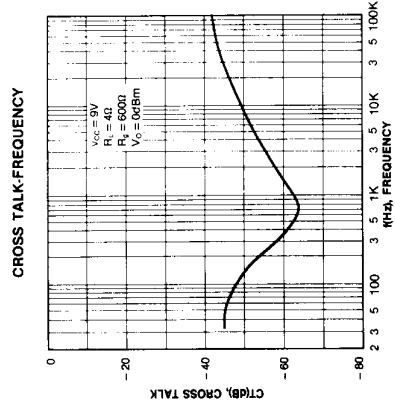
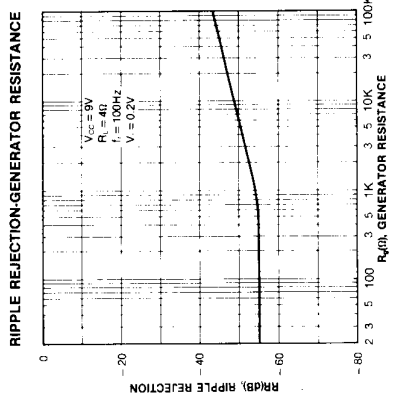
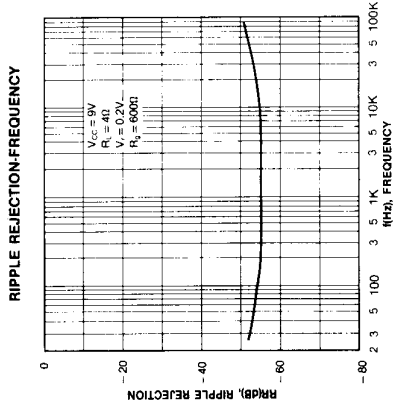
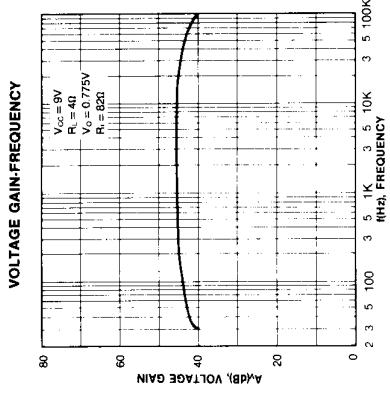
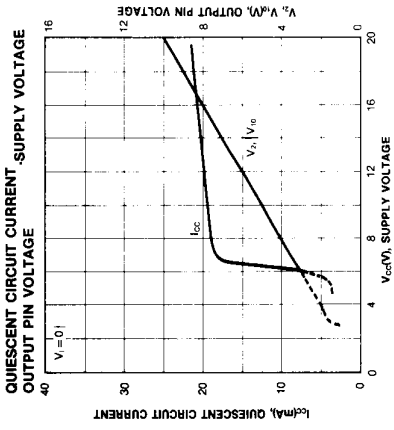
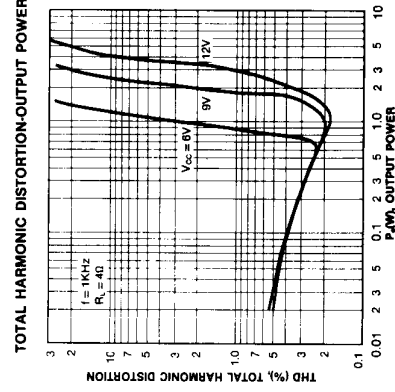
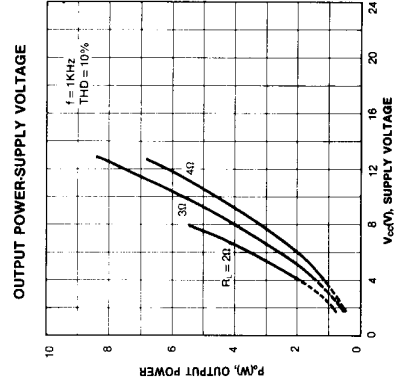
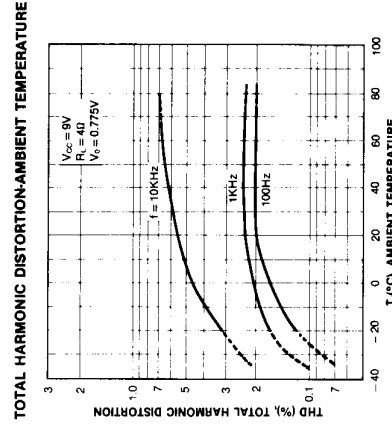
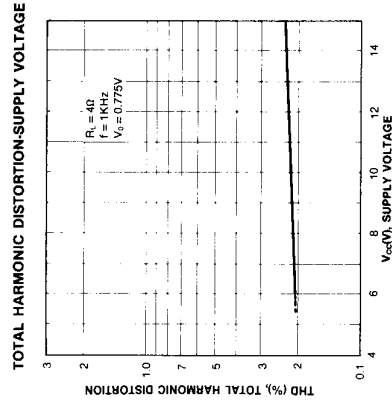
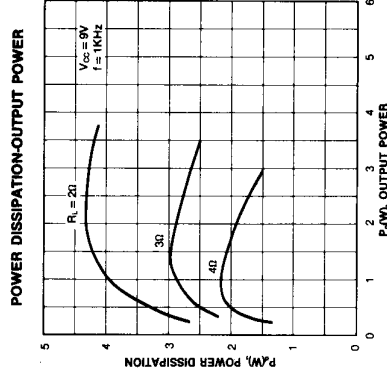
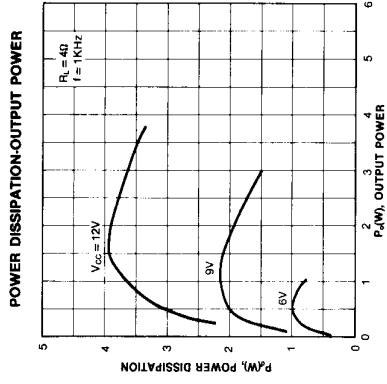
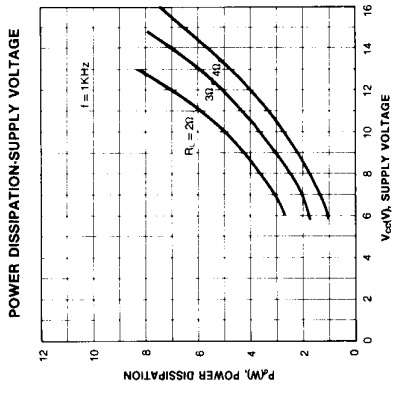
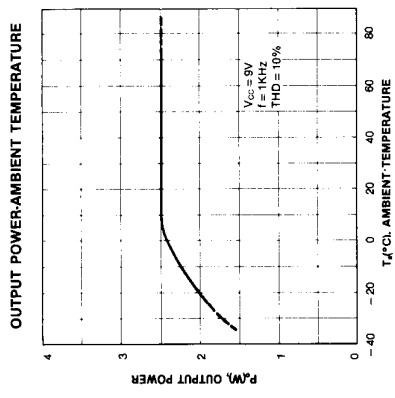
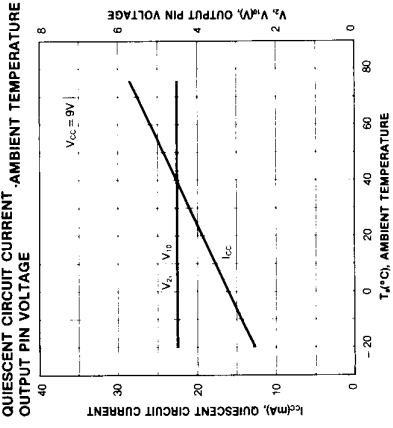
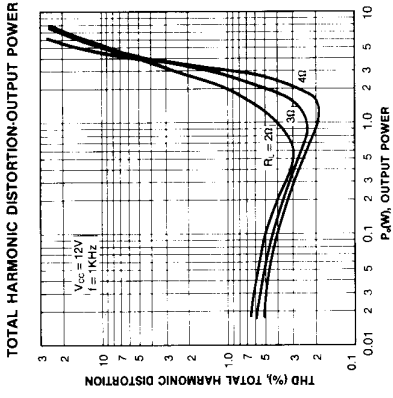
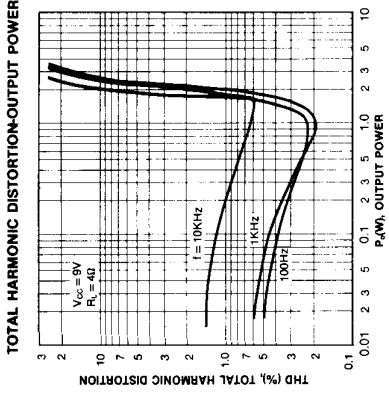
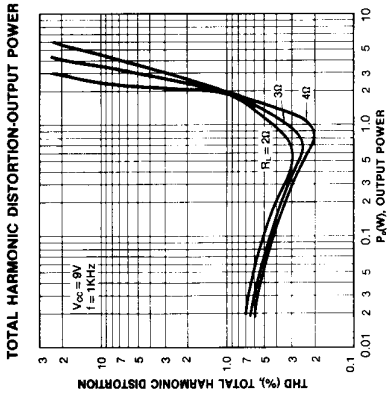


Fig. 2







APPLICATION CIRCUIT

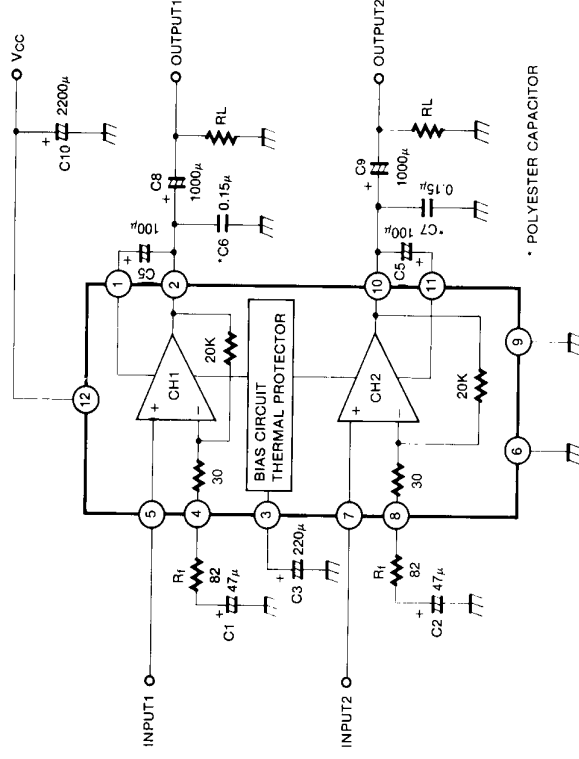


Fig. 3