

INTRODUCTION

The KA22066 is a monolithic integrated circuit consisting of a 2-channel power amplifier with a power on/off (stand-by switch) function. It is suitable for portable radio cassette tape recorders.

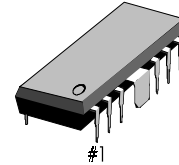
FEATURES

- 2-channel amplifier: $4.0W \times 2$ (Typ)
- Low quiescent circuit current: $I_{CCQ} = 15mA$ ($V_{CC} = 9V$)
- High output ($P_O = 4.0W$, $V_{CC} = 12V / 4\Omega$)
- Reduced shock noise at power on/off
- Minimum external parts required
- Supply voltage: $6V \sim 13V$
- Includes the thermal protection circuit
- Connects the H/S to GND

ORDERING INFORMATION

Device	Package	Operating Temperature
KA22066	12-DIPH-300	$-20^{\circ}C \sim +70^{\circ}C$

12-DIPH-300



BLOCK DIAGRAM

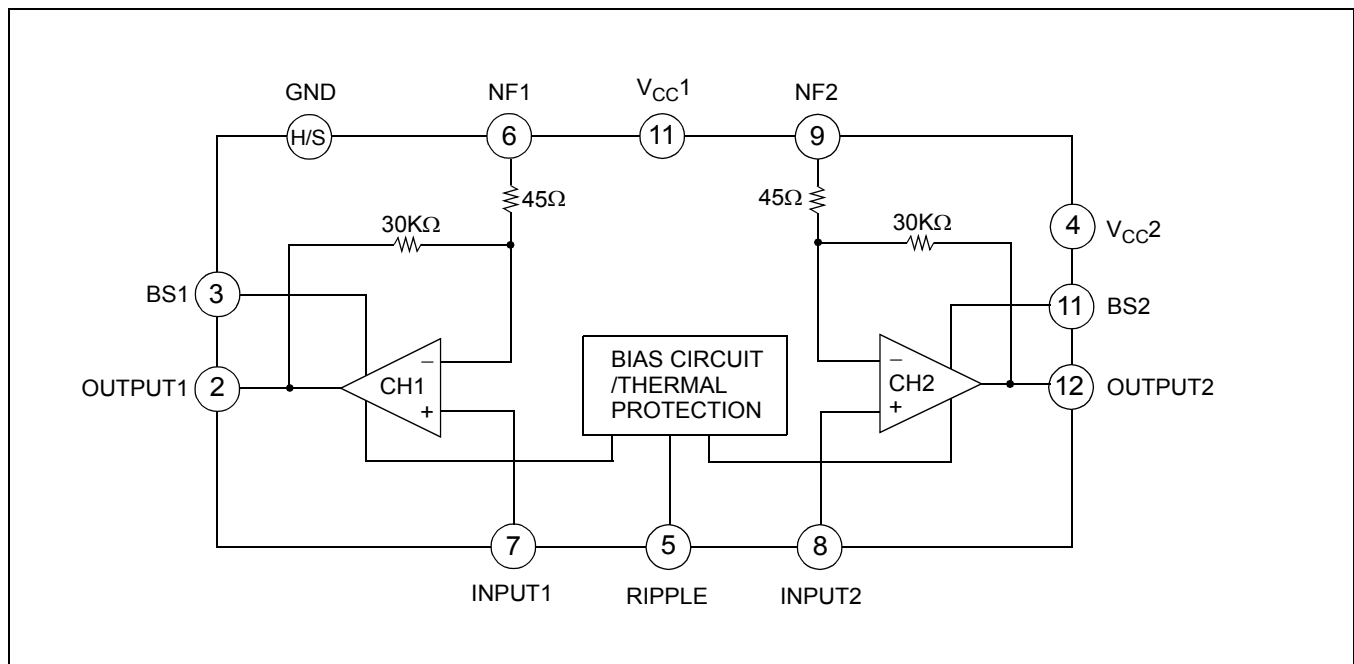


Figure 1.

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

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	20	V
Power Current (Channel)	I_O (peak)	2.5	A
Power Dissipation	P_D	9.4	W
Operating Temperature	T_{OPR}	$-20 \sim +70$	$^\circ\text{C}$
Storage Temperature	T_{STG}	$-40 \sim +150$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS(Ta = 25°C, V_{CC} = 9V, R_L = 40Ω, f = 1kHz, R_G = 600Ω, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Operating Supply Voltage	I _{CCQ}	V _I = 0	–	15	35	mA
Output Power	P _{O1}	THD = 10%	2.0	2.3	–	W
	P _{O2}	THD = 10%, V _{CC} = 12V	3.5	4.0	–	W
Total Harmonic Distortion	THD	P _O = 0.4W/CH	–	0.2	0.9	%
Voltage Gain (Closed Loop)	AV ₁	R _f = 120Ω, V _O = 0.775V	43	45	47	dB
	AV ₂	R _f = 0Ω, V _O = 0.775V	54.5	56.5	58.5	dB
Input Resistance	R _I	–	24	30	36	kΩ
Output Noise Voltage	V _{NO}	R _G = 10kΩ, BW = 20Hz - 20kHz	–	0.3	1.0	mV
Ripple Rejection Ratio	RR	R _G = 600Ω, f = 120Hz	44	52	–	dB
Cross Talk	C.T	R _G = 10kΩ, V _O = 0dBm, f = 1kHz	40	50	–	dB
Input Offset Voltage	V ₅ , V ₇	–	–	30	60	mV
Standby Current	I _{SB}	SW1 off	–	1	20	μA

TEST AND APPLICATION CIRCUIT

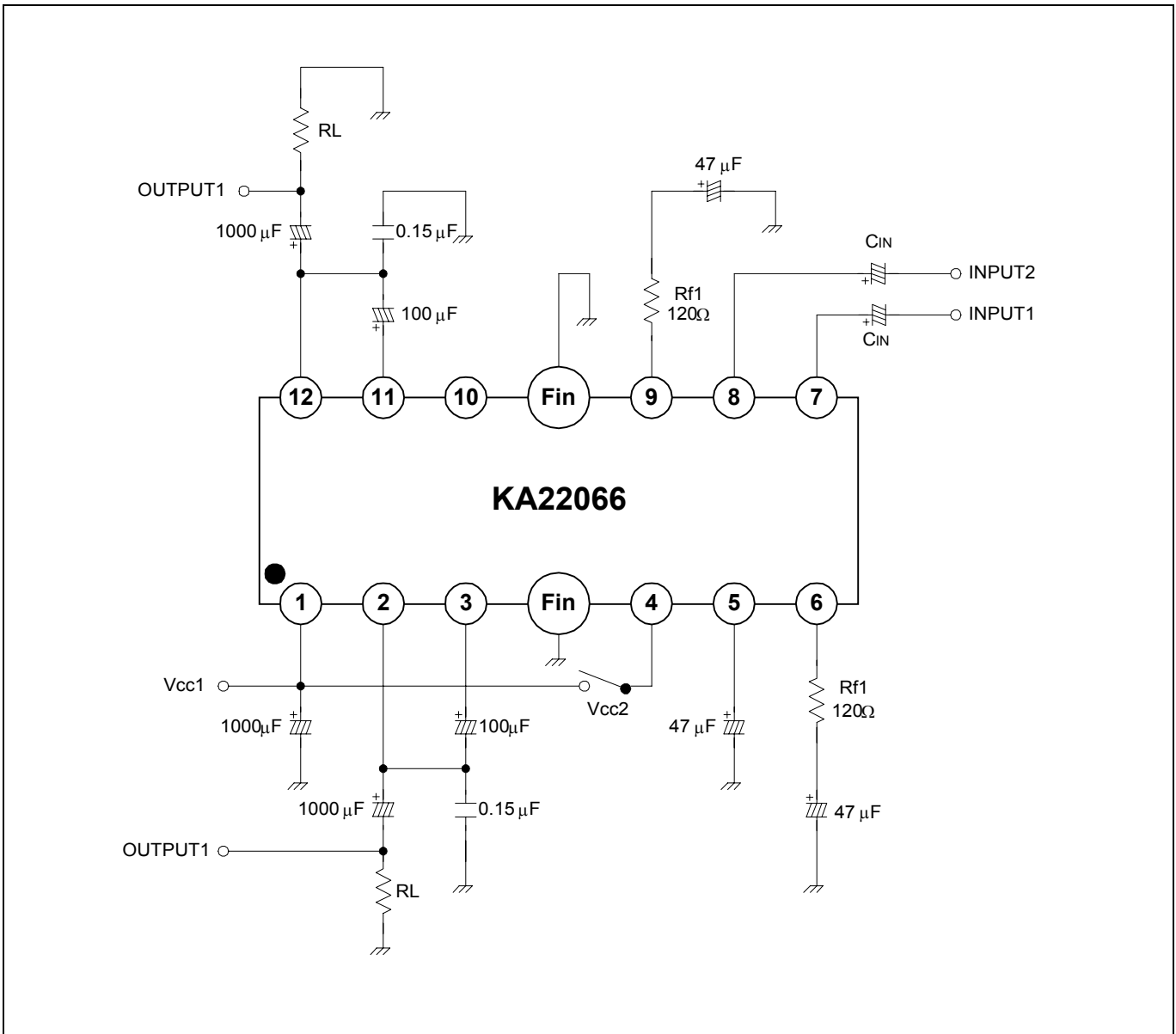


Figure 2.