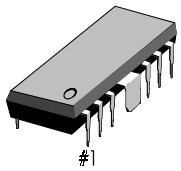
INTRODUCTION

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 record-er*s*.

12–DIPH–300



FEATURES

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

ORDERING INFORMATION

Device	Package	Operating Temperature
KA22066	12–DIPH–300	– 20°C ~ + 70°C

BLOCK DIAGRAM

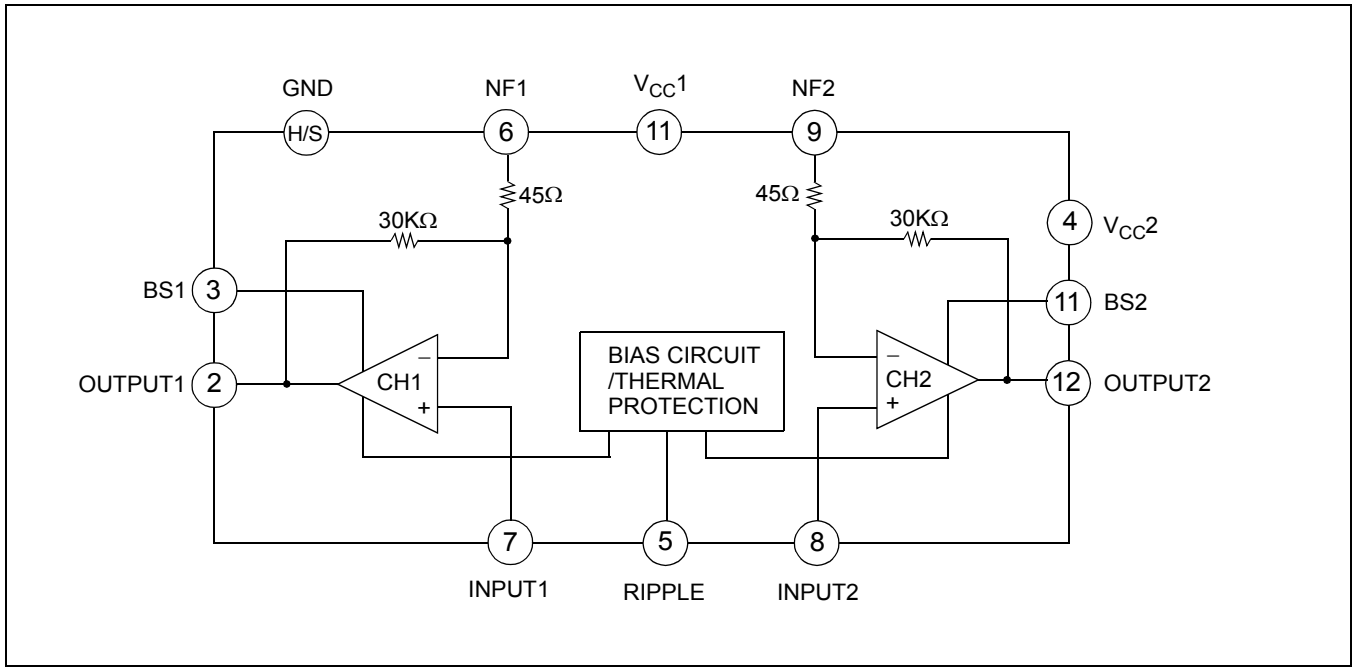


Figure 1.

ABSOLUTE MAXIMUM RATINGS (Ta = 25°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 ~ +70	°C
Storage Temperature	T_{STG}	– 40 ~ +150	°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

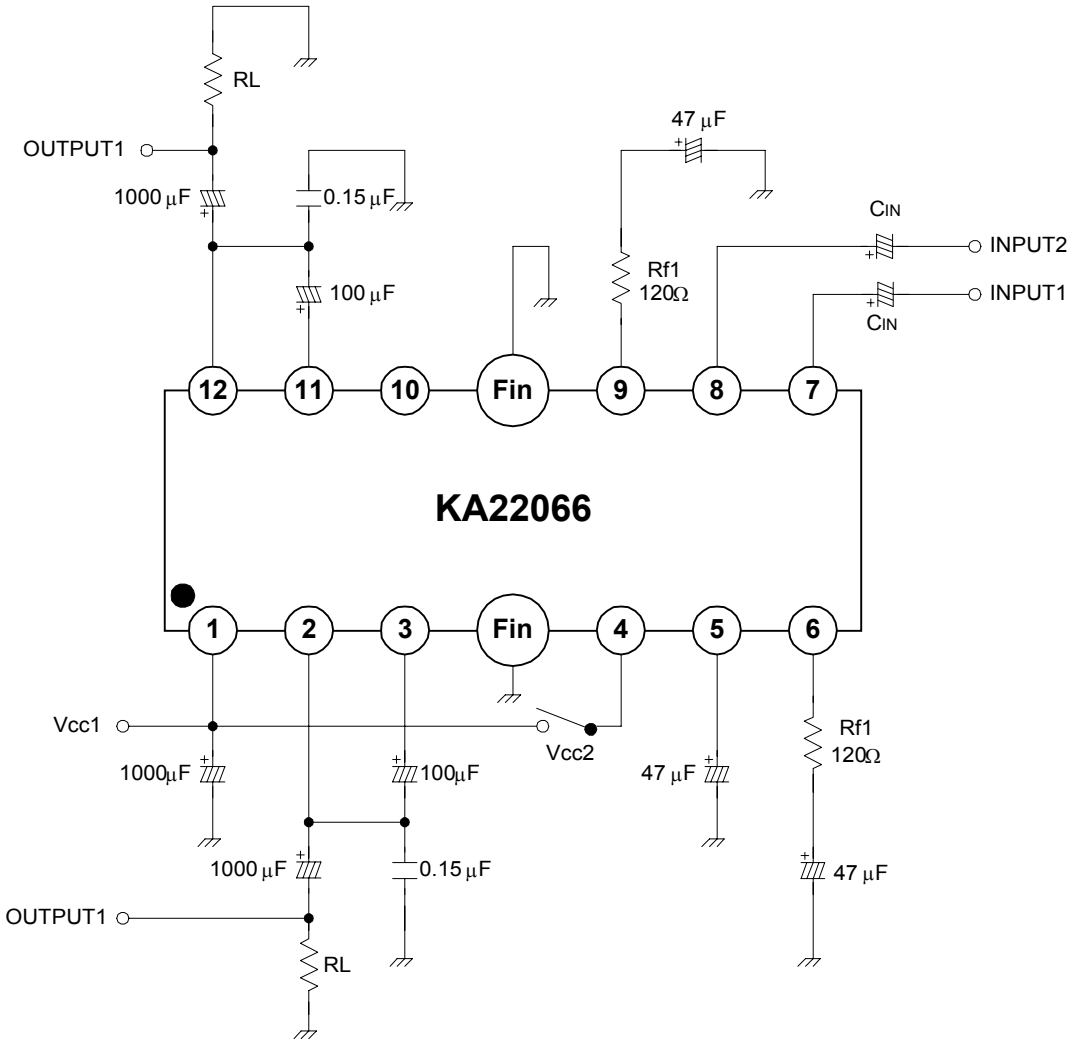


Figure 2.