

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.

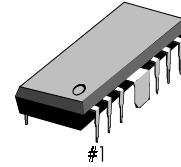
FEATURES

- 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

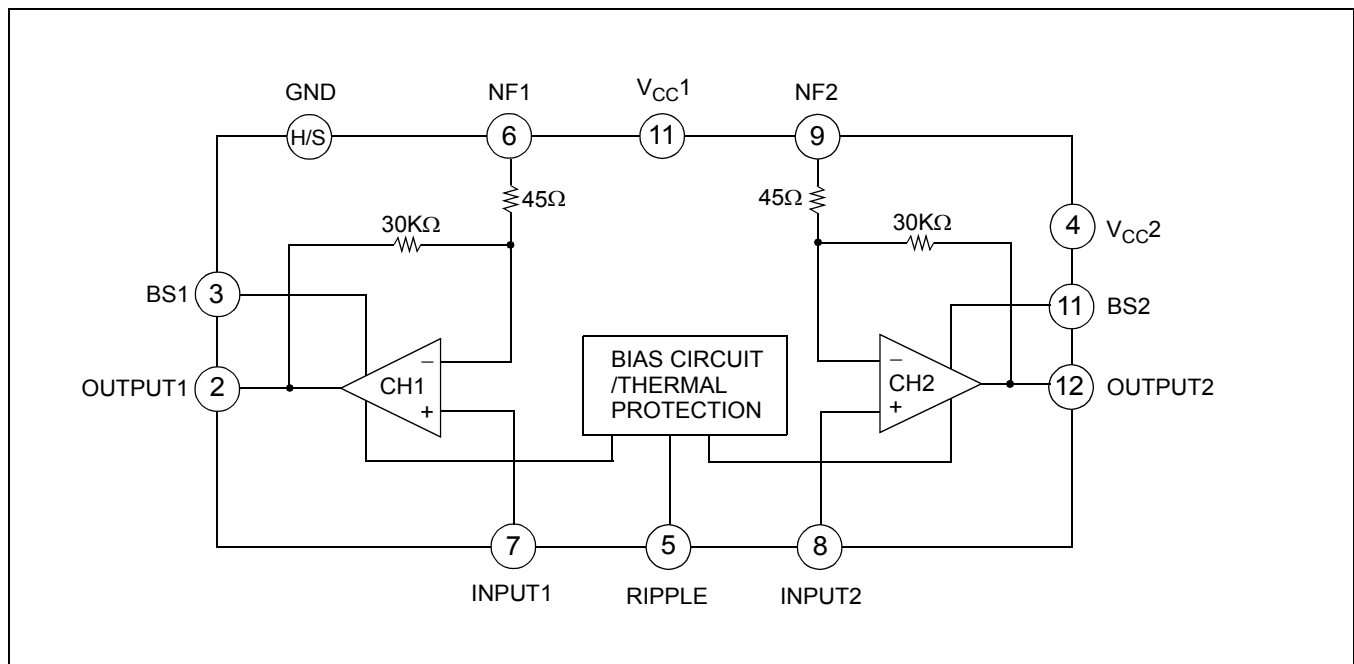


Figure 1.

ABSOLUTE MAXIMUM RATINGS (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

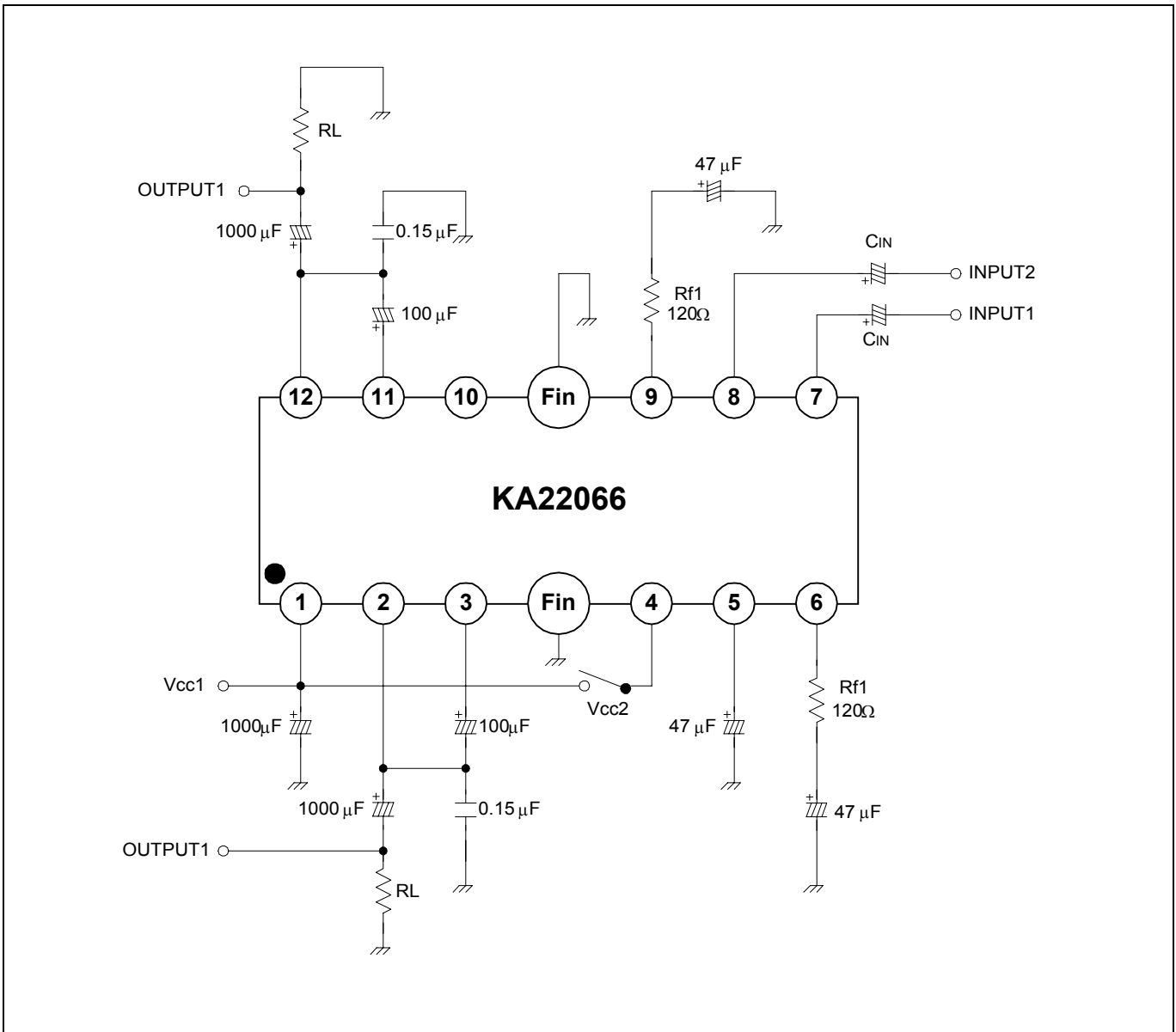


Figure 2.



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