

## INTRODUCTION

The KA22065 is a monolithic integrated circuit consisting of a 2-channel power amplifier with a power on/off (standby switch) function. It is suitable for portable radio cassette tape recorders.

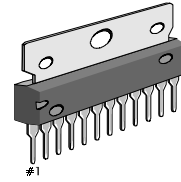
## FEATURES

- 2-channel amplifier:  $4.6W \times 2$  (Typ)
- Low quiescent circuit current:  $I_{CC} = 21mA$  (Typ)
- High output ( $P_O = 4.6W$ ,  $V_{CC} = 12V / 8W$ )
- Reduced shock noise at power on/off
- Minimum external parts required
- Supply voltage:  $6V \sim 15V$
- Includes the thermal protection circuit
- Connects the H/S to GND

## ORDERING INFORMATION

Device	Package	Operating Temperature
KA22065	12-SIP-H/S	$-20^{\circ}C \sim +70^{\circ}C$

12-SIP-H/S



## BLOCK DIAGRAM

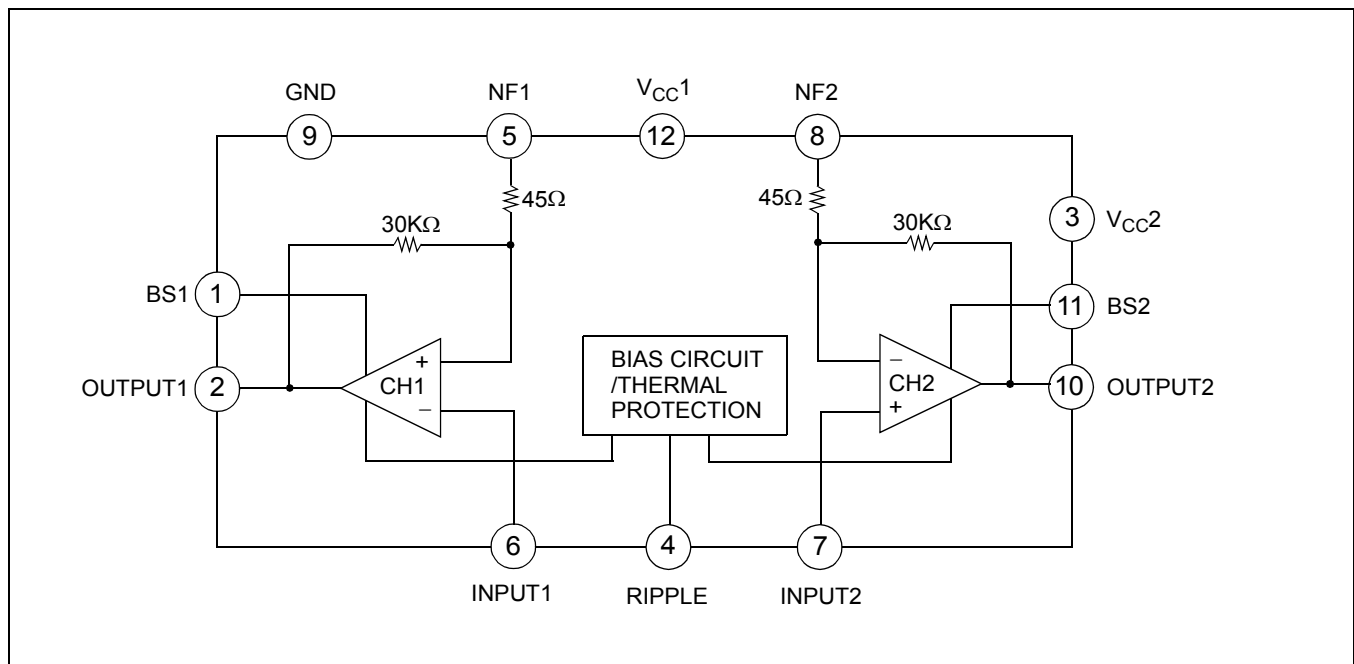


Figure 1.

## ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	V <sub>CC</sub>	20	V
Power Current (Channel)	I <sub>O</sub> (peak)	2.5	A
Power Dissipation	P <sub>D</sub>	12.5	W
Operating Temperature	T <sub>OPR</sub>	- 20 ~ +70	°C
Storage Temperature	T <sub>STG</sub>	- 40 ~ +150	°C

**ELECTRICAL CHARACTERISTICS**(Ta = 25°C, V<sub>CC</sub> = 9V, R<sub>L</sub> = 4Ω, f = 1kHz, R<sub>G</sub> = 600Ω, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Operating Supply Voltage	I <sub>CCQ</sub>	V <sub>I</sub> = 0	–	21	45	mA
Output Power	P <sub>O1</sub>	THD = 10%	2.0	2.5	–	W
	P <sub>O2</sub>	THD = 10%, V <sub>CC</sub> = 12V	4.0	4.6	–	W
Total Harmonic Distortion	THD	P <sub>O</sub> = 1W/CH	–	0.2	0.9	%
Voltage Gain (Closed Loop)	AV <sub>1</sub>	R <sub>f</sub> = 120Ω, V <sub>O</sub> = 0.775V	43	45	47	dB
	AV <sub>2</sub>	R <sub>f</sub> = 0Ω, V <sub>O</sub> = 0.775V	54.5	56.5	58.5	dB
Input Resistance	R <sub>I</sub>	–	24	30	36	kΩ
Output Noise Voltage	V <sub>NO</sub>	R <sub>G</sub> = 10kΩ, BW = 20Hz - 20kHz	–	0.3	1.0	mV
Ripple Rejection Ratio	RR	R <sub>G</sub> = 600Ω, f = 120Hz	44	52	–	dB
Cross Talk	C.T	R <sub>G</sub> = 10kΩ, V <sub>O</sub> = 0dBm, f = 1kHz	40	50	–	dB
Input Offset Voltage	V <sub>5</sub> , V <sub>7</sub>	–	–	30	60	mV
Standby Current	I <sub>SB</sub>	SW1 off	–	1	20	μA

TEST AND APPLICATION CIRCUIT

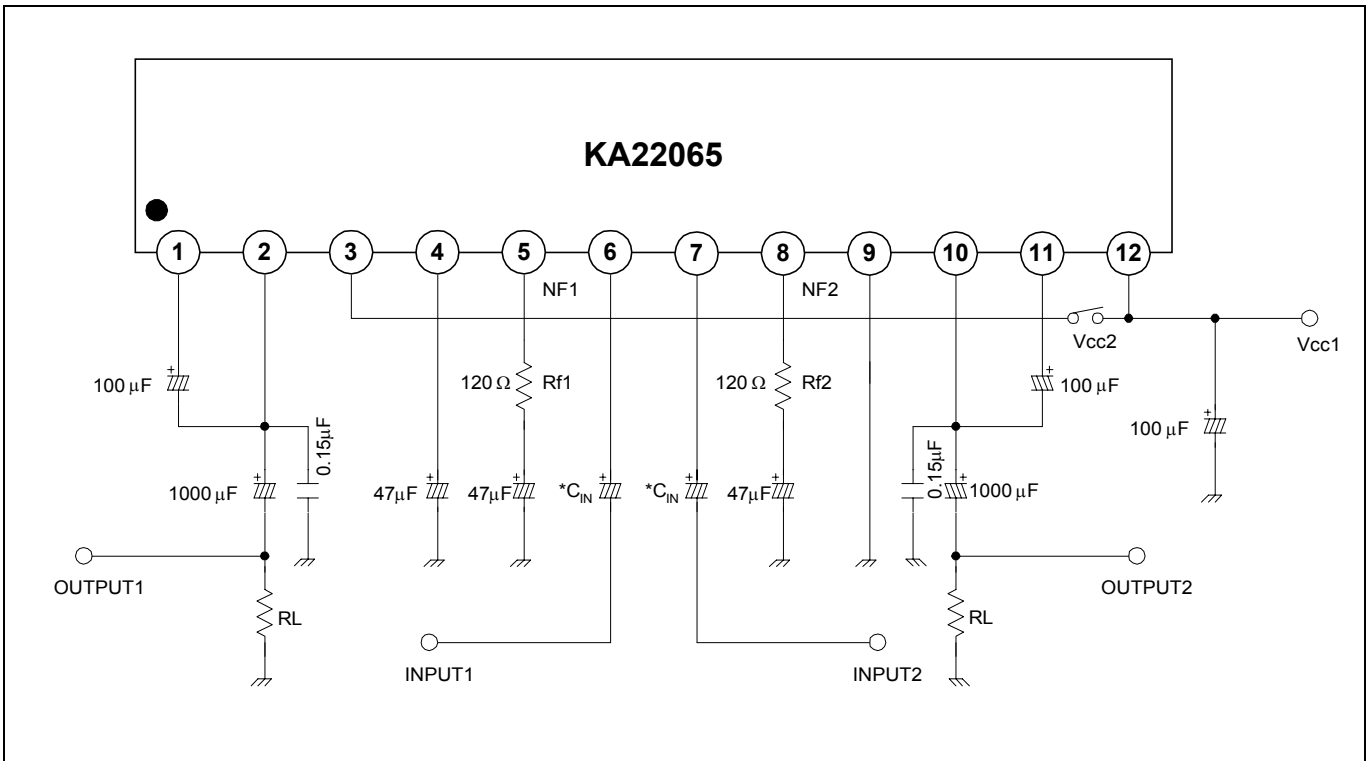


Figure 2.

APPLICATION CIRCUIT

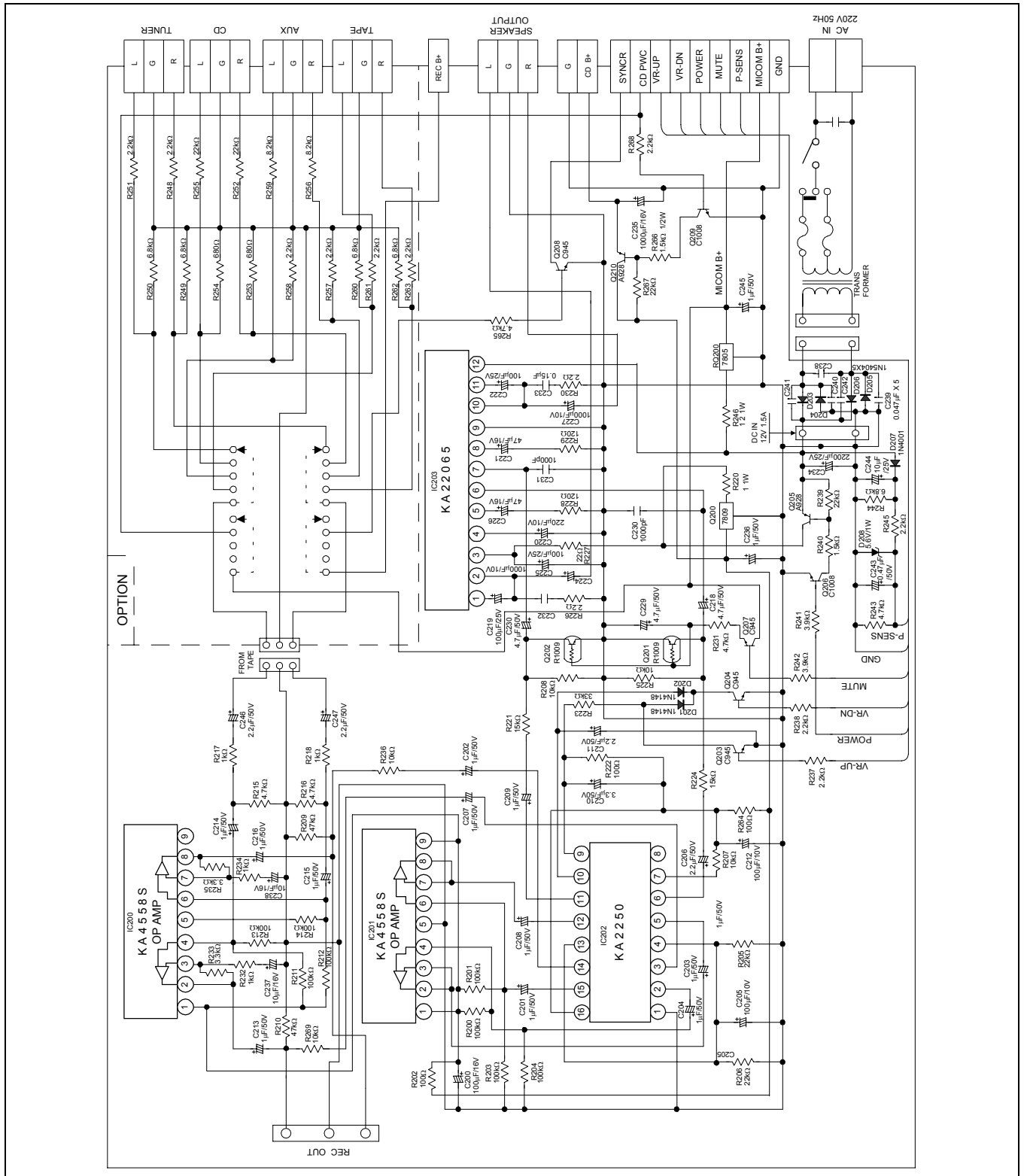


Figure 3.

NOTES