

KA22065

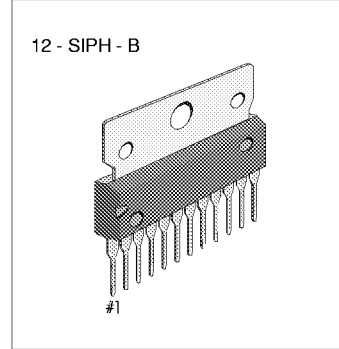
4.6W DUAL AUDIO POWER AMP

INTRODUCTION

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

FEATURES

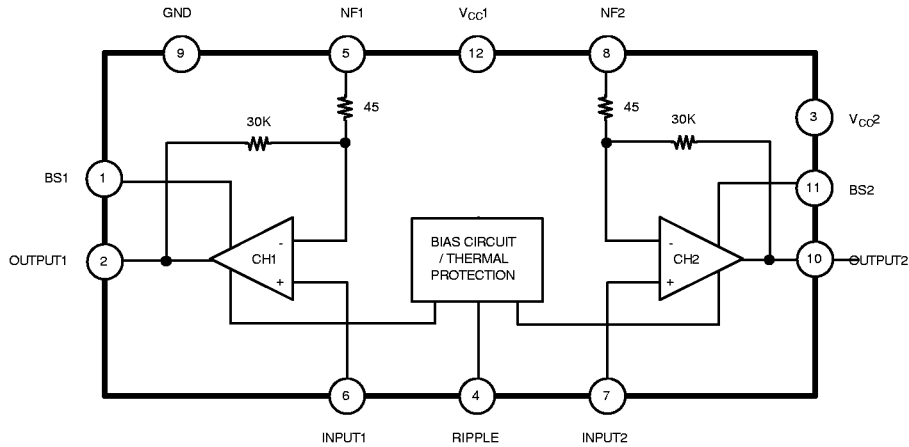
- 2-channel amplifier : 4.6W X 2 (typ.)
- Low quiescent circuit current : $I_{CC} = 21\text{mA}$ (typ.)
- High output ($P_O = 4.6\text{W}$, $V_{CC} = 12\text{V}/8\Omega$)
- Small pop noise at power on
- Minimum external parts required
- Supply voltage : 6V to 15V
- Include the thermal protection circuit
- Connect H/S to GND



ORDERING INFORMATION

Device	Package	Operating Temperature
KA22065	12-SIPH-B	-20°C ~ +70°C

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	20	V
Power Current (Channel)	I_O (peak)	2.5	A
Power Dissipation	P_D	12.5	W
Operating Temperature	T_{OPR}	-20 ~ +70	°C
Storage Temperature	T_{STG}	-40 ~ +150	°C

ELECTRICAL CHARACTERISTICS

($T_A = 25^\circ\text{C}$, $V_{CC} = 9\text{V}$, $R_L = 4\Omega$, $f = 1\text{KHz}$, $R_G = 600\Omega$, unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Operating Supply Voltage	I_{CCQ}	$V_I = 0$		21	45	mA
Output Power	P_{O1}	THD = 10%	2.0	2.5		W
	P_{O2}	THD = 10%, $V_{CC} = 12\text{V}$	4.0	4.6		W
Total Harmonic Distortion	THD	$P_O = 1\text{W/CH}$		0.2	0.9	%
Voltage Gain (Closed Loop)	AV_1	$R_I = 120\Omega$, $V_O = 0.775\text{V}$	43	45	47	dB
	AV_2	$R_I = 0\Omega$, $V_O = 0.775\text{V}$	54.5	56.5	58.5	dB
Input Resistance	R_I		24	30	36	$K\Omega$
Output Noise Voltage	V_{NO}	$R_G = 10K\Omega$, $BW = 20\text{Hz}-20\text{KHz}$		0.3	1.0	mV
Ripple Rejection Ratio	RR	$R_G = 600\Omega$, $f = 120\text{Hz}$	44	52		dB
Cross Talk	C.T	$R_G = 10K\Omega$, $V_O = 0\text{dBm}$, $f = 1\text{KHz}$	40	50		dB
Input Offset Voltage	V_5, V_7			30	60	mV
Stand By Current	I_{SB}	SW1 off		1	20	μA

TEST AND APPLICATION CIRCUIT

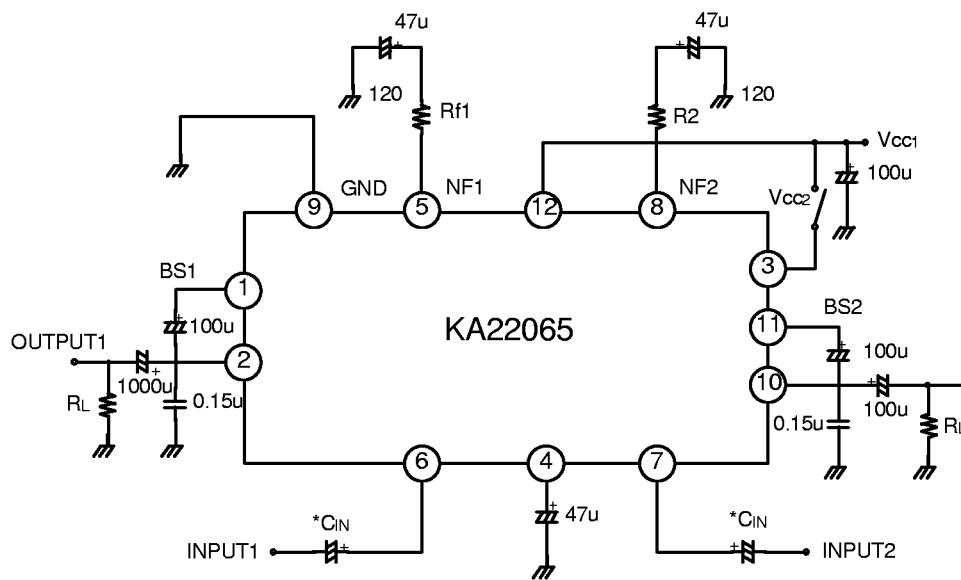
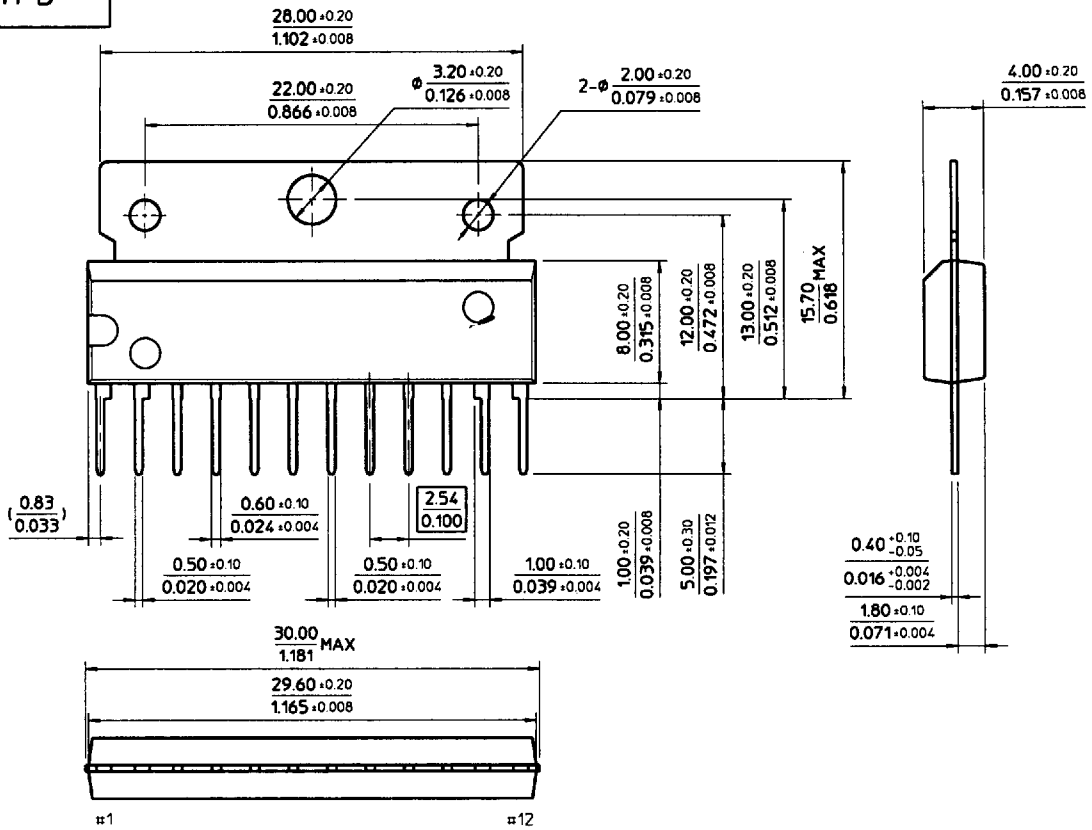


Fig. 2

12-SIPH-B



12-SSIP

