

DUAL RECORDING/PLAYBACK PREAMPLIFIER CIRCUIT WITH ALC——YD7312

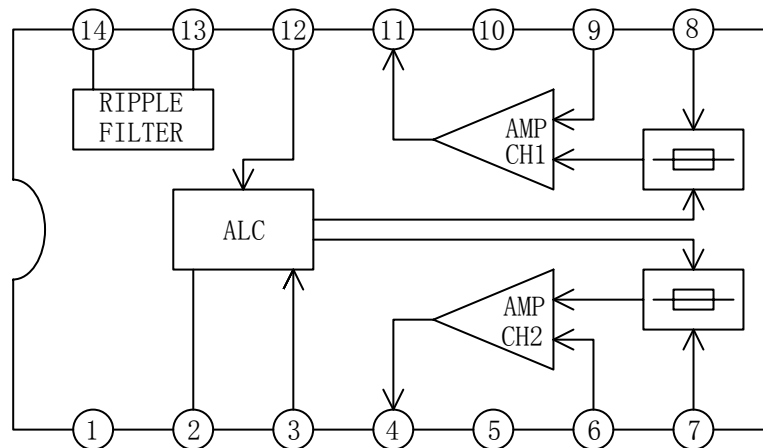
DESCRIPTION

The YD7312 is a monolithic integrated circuit designed for dual pre-amplifier circuit with ALC for recording/playback amplifier of cassette tape recorder.

FEATURES

- *High open loop gain
- *Incorporates ALC detector circuit
- *No input coupling condenser
- *Low noise and current consumption
- *Wide ALC range
- *Wide operating voltage range: $V_{cc}=5\sim 12\text{ V}$
- *Low power on shock noise

BLICK DIAGRAM



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OUTLINE FUNCTION

PIN	Name	Function	PIN	Name	Function
1	GND	GND	8	IN2	Input 2
2	T.C _{ALC}	ALC Time Parameter	9	NF2	Feedback 2
3	IN _{ALC1}	ALC Input 1	10	P _{COM}	Phase Compensation 2
4	OUT1	Output 1	11	OUT2	Output 2
5	P _{COM}	Phase Compensation 1	12	IN _{ALC2}	ALC Input 2
6	NF1	Feedback 1	13	R.F.	Ripple Filter
7	IN1	Input 1	14	V _{cc}	Voltage Supply

ABSOLUTE MAXIMUM RATINGS (T_{amb}=25°C)

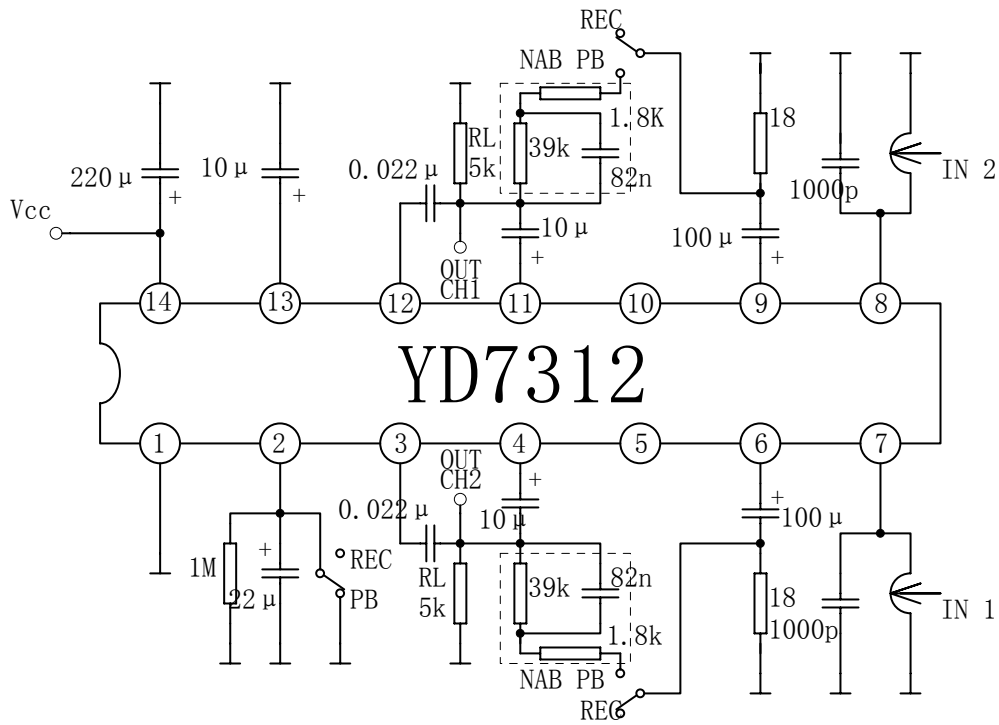
CHARACTERISTIC	SYMBOL	VALUE	UNIT
Supply Voltage	V _{cc}	14	V
Supply Current	I _{cc}	50	mA
Power Dissipation	P _d	700	mW
Operating Temperature	T _{opr}	-55 to +125	°C
Storage Temperature	T _{str}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS

(T_{amb}=25°C, V_{cc}=6V, f=1kHz, unless otherwise specified)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Quiescent Current	I _{ccq}	V _{in} =0	2.5	4.5	8.0	mA
Operating Voltage	V _{cc}		5.0		12.0	V
Closed Loop Voltage Gain	G _v	V _o =0.5V	66	69	72	dB
Total Harmonic Distortion	THD	V _o =0.5V		0.5	1.0	%
Output Voltage	V _o	THD=1%	1.2	1.6		V
Output Noise Voltage	V _{NO}	R _g =0(internal resistance 1.5kΩ DIN/Audio)		2.0	5.0	mV
ALC Voltage	V _{ALC}	V _{in} =400μV	0.55	0.63	0.7	V
ALC Width	W _{ALC}	Beginning 0dB to 3dB	35	47		dB
ALC Balance	ΔG _v	V _o =0.5V	-1	0	+1	dB

APPLICATION CIRCUIT



OUTLINE DRAWING

DIP-14

unit:mm

