AN7318S

Dual Record/Playback Preamplifier Circuit with ALC

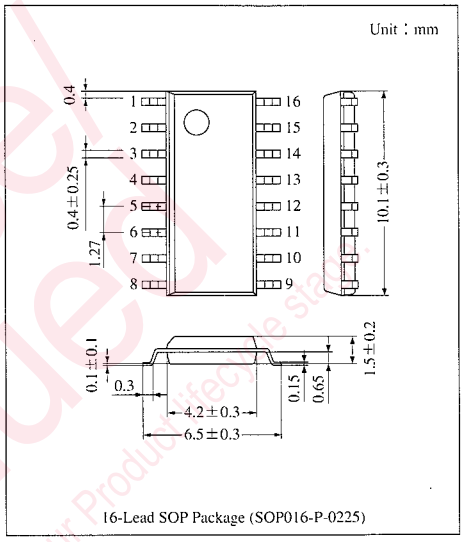
■ Overview

The AN7318S is a record/playback stereo preamplifier IC with ALC developed for radio-cassette tape recorder.

The circuit is contained in the 16-lead SOP (pana-flat package).

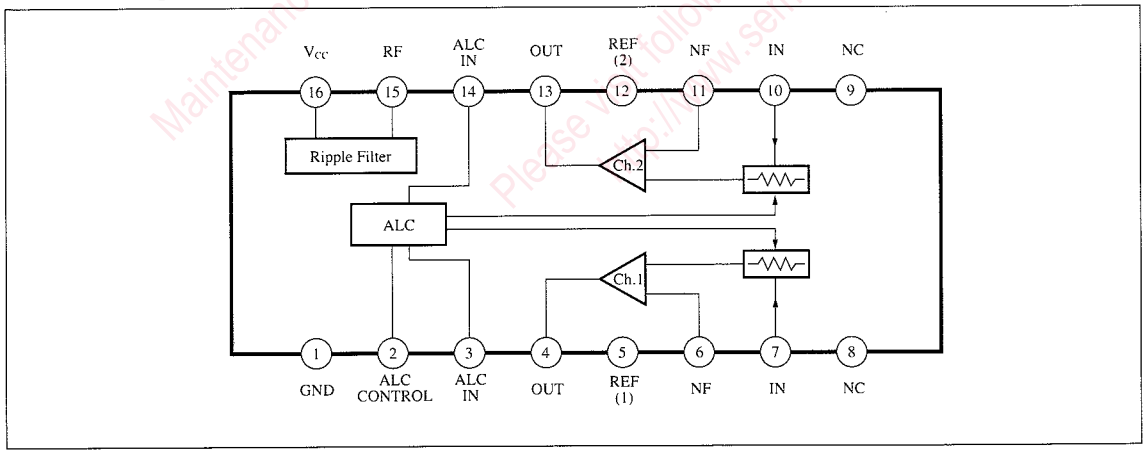
■ Features

- High open loop gain (typ. 100dB)
- ALC circuit built-in
- Low noise (typ. 0.7 μV)
- Low current consumption (typ. I_{CQ} =4.5mA)
- Low EMI achievable is a external RC network
- Low power on shock noise



16-Lead SOP Package (SOP016-P-0225)

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Supply Voltage	V_{CC}	14	V
Supply Current	I_{CC}	50	mA
Power Dissipation	P_D	200	mW
Operating Ambient Temperature	T_{opr}	−20～+75	℃
Storage Temperature	T_{stg}	−55～+150	℃

■ Recommended Operating Range (Ta=25℃)

Parameter	Symbol	Range
Operating Supply Voltage Range	V_{CC}	5.0V～12V

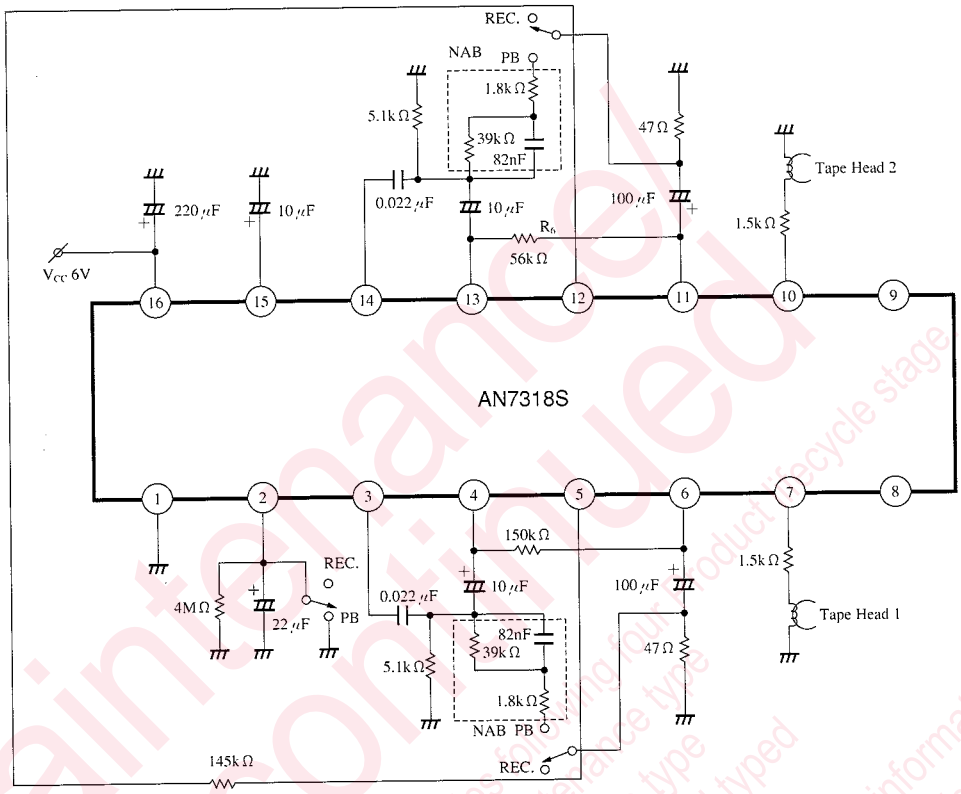
■ Electrical Characteristics (V_{CC}=6V, f=1kHz, R_L=5.1kΩ, Ta=25±2℃)

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Quiescent Circuit Current	I_{CQ}	V_{in}=0mV	2.5	4.5	8.0	mA
Closed Circuit Voltage Gain	G_{VC}	V_O=0.5V	66	70	72	dB
Total Harmonics Distortion	THD	V_O=0.5V	—	0.5	1.0	%
Max. Output Voltage	V_O	THD=1%	1.2	1.6	—	V
Output Noise Voltage	V_{no}	R_g=0Ω DIN/AUDIO	—	2.0	4.2	mV
ALC Voltage	V_{ALC}	V_{in}=400μV	0.55	0.63	0.7	V
ALC Width	W_{ALC}	Starting point 3dB up	35	47	—	dB
Channel Balance	CB	V_O=0.5V, CB=Gv1−Gv2	−1	0	+1	dB

■ Pin Description

Pin No.	Pin Name	Pin No.	Pin Name
1	GND	9	N.C
2	ALC Time Constant	10	Ch.2 Input
3	Ch.1 ALC Input	11	Ch.2 Negative Feedback
4	Ch.1 Output	12	Pin② Reference
5	Pin① Reference	13	Ch.2 Output
6	Ch.1 Negative Feedback	14	Ch.2 ALC Input
7	Ch.1 Input	15	Ripple Filter
8	N.C	16	V_{CC}

■ Application Circuit



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