

# AN7318S

## Dual Record/Playback Preamplifier Circuit with ALC

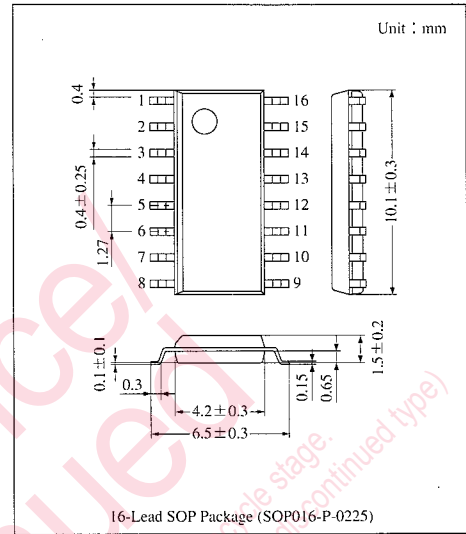
### Overview

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).

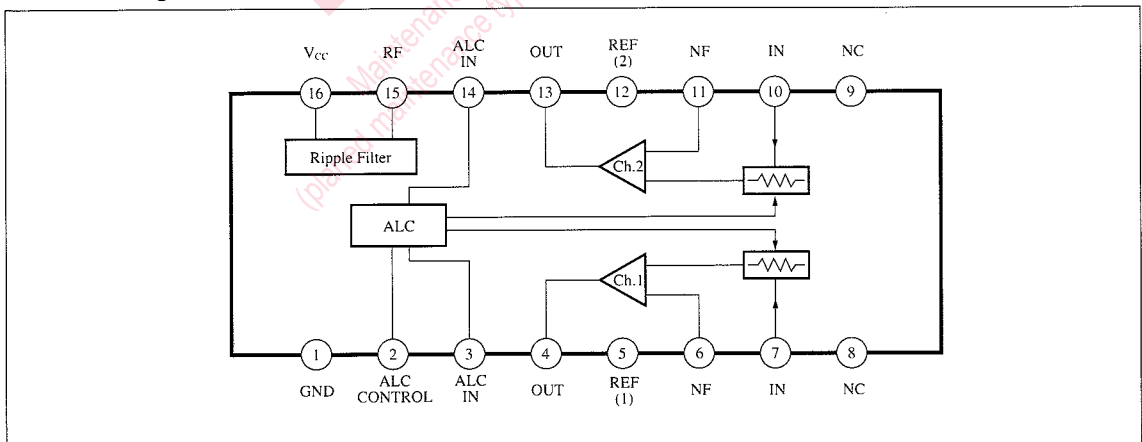
### Features

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



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### Block Diagram



### ■ Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Supply Voltage	V <sub>CC</sub>	14	V
Supply Current	I <sub>CC</sub>	50	mA
Power Dissipation	P <sub>D</sub>	200	mW
Operating Ambient Temperature	T <sub>opr</sub>	-20 ~ +75	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C

### ■ Recommended Operating Range (Ta=25°C)

Parameter	Symbol	Range
Operating Supply Voltage Range	V <sub>CC</sub>	5.0V ~ 12V

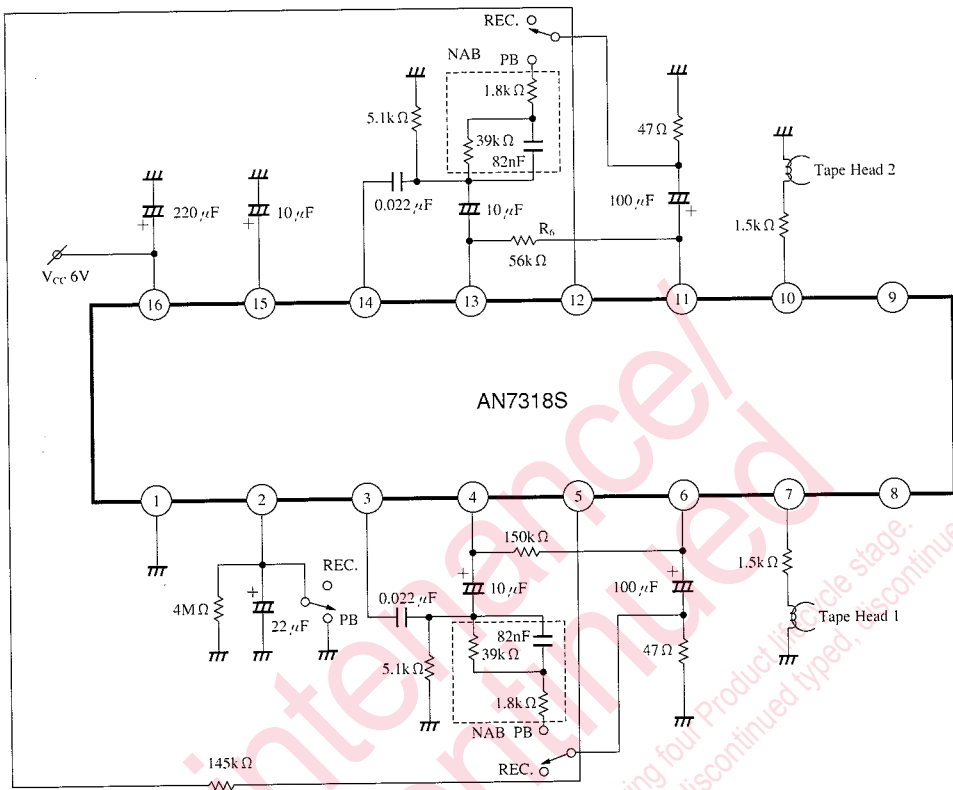
### ■ Electrical Characteristics (V<sub>CC</sub>=6V, f=1kHz, R<sub>L</sub>=5.1kΩ, Ta=25±2°C)

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Quiescent Circuit Current	I <sub>CQ</sub>	V <sub>in</sub> =0mV	2.5	4.5	8.0	mA
Closed Circuit Voltage Gain	G <sub>VC</sub>	V <sub>O</sub> =0.5V	66	70	72	dB
Total Harmonics Distortion	THD	V <sub>O</sub> =0.5V	—	0.5	1.0	%
Max. Output Voltage	V <sub>O</sub>	THD=1%	1.2	1.6	—	V
Output Noise Voltage	V <sub>no</sub>	R <sub>g</sub> =0Ω DIN/AUDIO	—	2.0	4.2	mV
ALC Voltage	V <sub>ALC</sub>	V <sub>in</sub> =400μV	0.55	0.63	0.7	V
ALC Width	W <sub>ALC</sub>	Starting point 3dB up	35	47	—	dB
Channel Balance	CB	V <sub>O</sub> =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 <sub>CC</sub>

■ Application Circuit



Maintenance/Discontinued  
 (planned maintenance type, maintenance type, planned discontinued type, discontinued type)

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