AN7332S

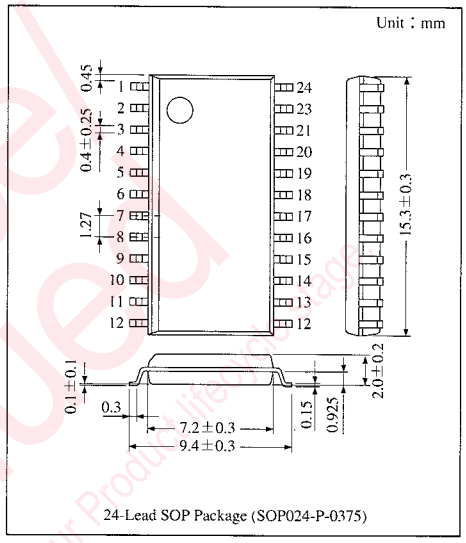
Dual 4-Band Graphic Equalizer IC

■ Overview

The AN7332S is an integrated circuit designed for dual 4 bands graphic equalizer most suitably used for radio cassette recorder and portable stereo set. Two channel 4 bands graphic equalizer can be composed by applying resonance frequency setting capacitor and variable resistor externally. Boost and cutting quantity is adjusted.

■ Features

- Wide operating supply voltage range : $V_{CC\ (opr)}$ = 3 ~ 14.4V
- The resonance frequency is fixed by using suitable capacitors.
- Dual-channel IC : compact circuit design possible.
- Low current consumption : 2.8mA typ. (V_{CC} = 5V)



24-Lead SOP Package (SOP024-P-0375)

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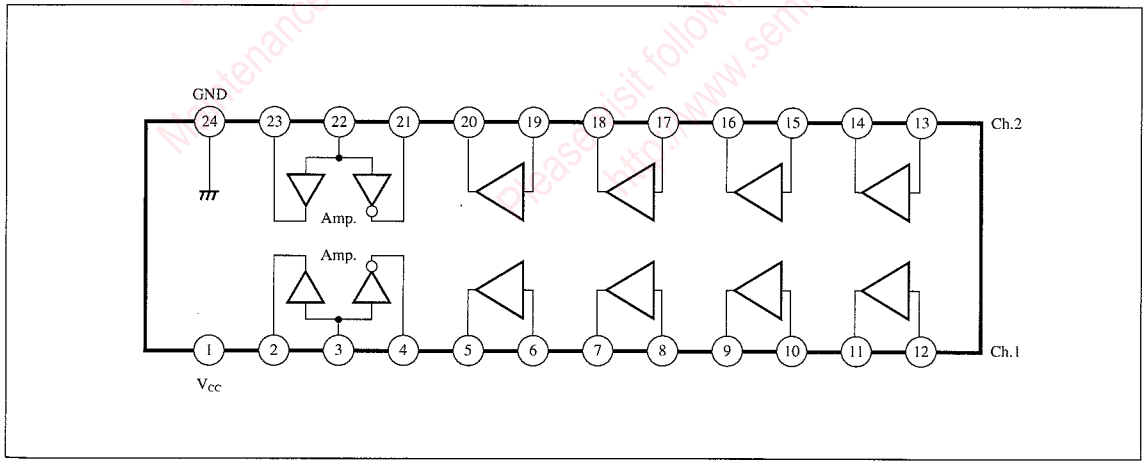
■ Block Diagram



■ Pin Descriptions

Pin No.	Pin Name	Pin No.	Pin Name
1	V_{CC}	13	Base 4 Ch.2
2	Non Inverting Output Ch.1	14	Negative Feedback 4 Ch.2
3	Input Ch.1	15	Base 3 Ch.2
4	Inverting Output Ch.1	16	Negative Feedback 3 Ch.2
5	Negative Feedback 1 Ch.1	17	Base 2 Ch.2
6	Base 1 Ch.1	18	Negative Feedback 2 Ch.2
7	Negative Feedback 2 Ch.1	19	Base 1 Ch.2
8	Base 2 Ch.1	20	Negative Feedback 1 Ch.2
9	Negative Feedback 3 Ch.1	21	Inverting Output Ch.2
10	Base 3 Ch.1	22	Input Ch.2
11	Negative Feedback 4 Ch.1	23	Non Inverting Output Ch.2
12	Base 4 Ch.1	24	GND Ch.2

■ Absolute Maximum Ratings (Ta=25℃)

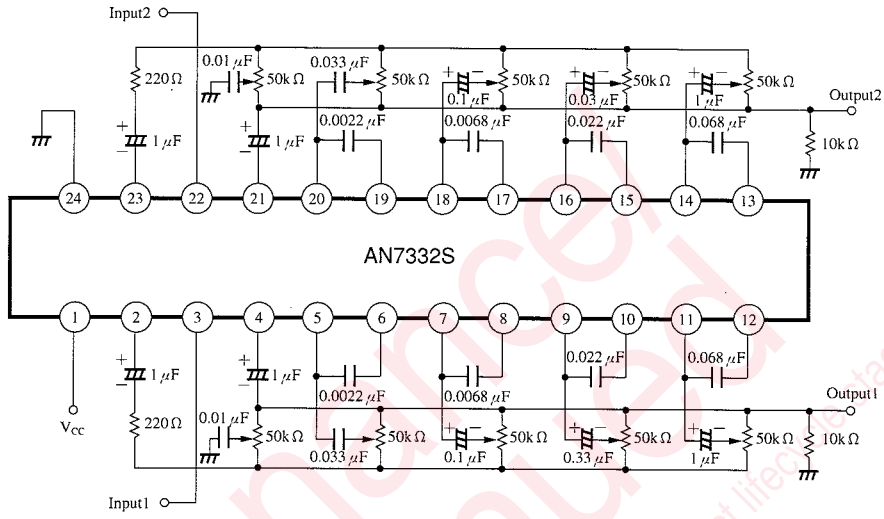
Parameter	Symbol	Rating	Unit
Supply Voltage	V_{CC}	14.4	V
Supply Current	I_{CC}	30	mA
Power Dissipation	P_D	432	mW
Operating Ambient Temperature	T_{opr}	−20～+75	℃
Storage Temperature	T_{stg}	−55～+125	℃

■ Electrical Characteristics (V_{CC}=5V, R_g=10kΩ, Ta=25℃)

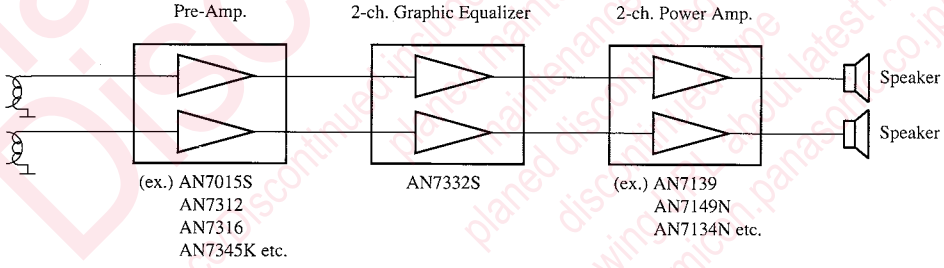
Parameter	Symbol	Condition	min.	typ.	max.	Unit
Total Circuit Current (1)	I_{tot1}	V_{CC}=5V	1.6	2.8	4.0	mA
Total Circuit Current (2)	I_{tot2}	V_{CC}=9V	2.0	3.8	5.5	mA
Voltage Gain	G_V	f=1kHz, All Flat, V_O=−10dB	—	−3	—	dB
Boost Quantity	Boost	f=100Hz	6.5	8.5	—	dB
Boost Quantity	Boost	f=340Hz	6.5	8.5	—	dB
Boost Quantity	Boost	f=1kHz	6.5	8.5	—	dB
Boost Quantity	Boost	f=3.4kHz	6.5	8.5	—	dB
Cutting Quantity	Cut	f=100Hz	−7.5	−9.5	—	dB
Cutting Quantity	Cut	f=340Hz	−7.5	−9.5	—	dB
Cutting Quantity	Cut	f=1kHz	−7.5	−9.5	—	dB
Cutting Quantity	Cut	f=3.4kHz	−7.5	−9.5	—	dB
Total Harmonic Distortion	THD	f=1kHz, V_O=−20dB	—	0.2	0.4	%
Output Noise Voltage	V_{no}	R_g=0Ω, All Flat, DIN/AUDIO	—	15	—	μV
Crosstalk	CT	f=1kHz, All Flat, R_g=0Ω	—	−64	—	dB

Note) Boost and cutting quantity show the value when each element is operated.
Vo=−10dB is set to 0dB in all flat in each frequency.

■ Application Circuit



■ Block diagram for cassette tape recorder with built-in graphic equalizer



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