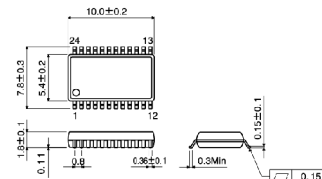


## 3 wire serial sound control IC BH3862FS

### ●Description

BH3862FS is a sound control IC that includes a 4 input selector, volume and a 2 band tone. REC output terminals are located between the 4 input selector and the volume. Either 0dB or 18dB gain can be chosen. Functions such as stereo/monaural mode selection and mute are provided.

### ●Dimension (Units : mm)



SSOP-A24

### ●Features

- 1) Built-in 4-input selector, mute circuit, REC gain amplifier, volume, bass and treble.
- 2) 3-wire serial interface
- 3) Resistor ladder type volume control that uses a BiCMOS process for low noise and distortion.
- 4) SSOP-A24 package

### ●Applications

Mini component stereo, Micro component stereo,  
Radio cassette recorder

● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V <sub>CC</sub>	6.0	V
Power dissipation	P <sub>d</sub>	650	mW
Operating temperature range	Topr	-40 ~ + 85	°C
Storage temperature range	Tstg	-55 ~ + 125	°C

Derating : 6.5mW/°C for operation above Ta=25°C.

● Recommended Operating Conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	V <sub>CC</sub>	4.5	5.0	5.5	V

● Electrical Characteristics (Unless otherwise noted, Ta=25°C, V<sub>CC</sub>=5V, R<sub>L</sub>=10K , R<sub>g</sub>=0 , V<sub>IN</sub>=100mVrms, f=1KHz, Input terminals are A1 and A2.)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Current upon no signal	I <sub>Q</sub>	—	5	25	mA	R <sub>g</sub> =0
REC output voltage gain	G <sub>VREC</sub>	16	18	20	dB	At REC gain 18dB
REC output distortion rate	THD <sub>REC</sub>	—	0.02	0.08	%	At REC gain 18dB, BW=400~30KHz
Total voltage gain	G <sub>v</sub>	16	18	20	dB	At REC gain 18dB
LINE maximum output voltage	V <sub>omax</sub>	0.85	1.1	—	V <sub>rms</sub>	THD=1%
LINE output distortion rate	THD	—	0.02	0.08	%	At REC gain 18dB, BW=400~30KHz
Output noise voltage	N <sub>O</sub>	—	12	45	μV <sub>rms</sub>	R <sub>g</sub> =0
Maximum attenuation	ATT <sub>max</sub>	—	-90	-85	dB	Output level standard (V <sub>o</sub> =1V <sub>rms</sub> at 0dB)
Bass boost gain 21dB	G <sub>B</sub>	19.5	21	22.5	dB	Output level standard (V <sub>o</sub> =80mV <sub>rms</sub> at 0dB)
Treble boost gain 9dB	G <sub>T</sub>	7.5	9	10.5	dB	Output level standard (V <sub>o</sub> =80mV <sub>rms</sub> at 0dB)
Channel separation	CTC	—	-108	-80	dB	V <sub>IN</sub> =1V <sub>rms</sub> , R <sub>g</sub> =0
Selector separation	CTS	—	-108	-80	dB	V <sub>IN</sub> =1V <sub>rms</sub> , R <sub>g</sub> =0

VP-9690A (Average value detection, effective value display) IHF-A filter by Matsushita.

● Application Circuit

