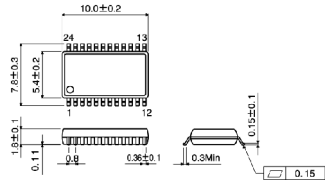
3 wire serial sound control IC
BH3862FS

●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

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●Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	6.0	V
Power dissipation	Pd	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_{CC}	4.5	5.0	5.5	V

●Electrical Characteristics (Unless otherwise noted, Ta=25˚C, Vcc=5V, R_L=10K , Rg=0 , V_{IN}=100mVrms, f=1KHz, Input terminals are A1 and A2.)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Current upon no signal	I_Q	—	5	25	mA	Rg=0
REC output voltage gain	G_{VREC}	16	18	20	dB	At REC gain18dB
REC output distortion rate	THD_{REC}	—	0.02	0.08	%	At REC gain18dB, BW=400~30KHz
Total voltage gain	G_V	16	18	20	dB	At REC gain18dB
LINE maximum output voltage	V_{omax}	0.85	1.1	—	Vrms	THD=1%
LINE output distortion rate	THD	—	0.02	0.08	%	At REC gain18dB, BW=400~30KHz
Output noise voltage	N_O	—	12	45	μVrms	Rg=0
Maximum attenuation	ATTmax	—	–90	–85	dB	Output level standard (Vo=1Vrms at 0dB)
Bass boost gain 21dB	G_B	19.5	21	22.5	dB	Output level standard (Vo=80mVrms at 0dB)
Treble boost gain 9dB	G_T	7.5	9	10.5	dB	Output level standard (Vo=80mVrms at 0dB)
Channel separation	CTC	—	–108	–80	dB	VIN=1Vrms, Rg=0
Selector separation	CTS	—	–108	–80	dB	VIN=1Vrms, Rg=0

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

●Application Circuit