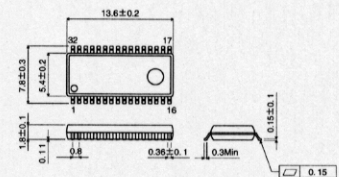


## Audio Sound Control LSI BD3861FS

●Description

The BD3861FS is a sound control LSI developed for micro component stereo. Volume and tone quality can be controlled easily from a micro component stereo, through a 2 wire serial control interface.

●Dimension (Units : mm)



●Features

- 1)Built-in Volume, Tone (Bass, Middle, Treble),  
Input gain amplifier, input selector control is available.
- 2)Low distortion and low noise
- 3)2-wire serial interface
- 4)Perfect for saving space design with few external components due to a built-in input gain amplifier.
- 5)Residual noise can be reduced by setting pre-volume and post-volume

SSOP-A32

●Applications

Micro component stereo, Radio cassette tape recorder, Mini component stereo

● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V <sub>CC</sub>	10	V
Power dissipation	P <sub>d</sub>	800 *	mW
Operating temperature range	Topr	-25 ~ +75	°C
Storage temperature range	Tstg	-55 ~ +150	°C

\*Derating : 6.4mW/°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>	6.5	-	9.5	V

● Electrical characteristics (Unless otherwise noted, Ta=25°C, V<sub>CC</sub>=9V, f=1kHz, V<sub>i</sub>=1Vrms, R<sub>L</sub>=10kΩ)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current	I <sub>Q</sub>	-	13.0	26.0	mA	R <sub>g</sub> =0kΩ
Total output voltage gain	G <sub>v</sub>	-1.5	0	1.5	dB	
Total harmonic distortion rate	THD	-	0.02	0.08	%	
Maximum output voltage	V <sub>OM</sub>	2.0	2.5	-	Vrms	THD=1%
Total output noise voltage	V <sub>NO</sub>	-	8.0	15.0	μVrms	R <sub>g</sub> =0kΩ, IHF-A
Input volume control range	VRI	-73.0	-70.0	-67.0	dB	
Output volume control range	VRO	-61.0	-59.0	-57.0	dB	
Bass boost • Cut gain	G <sub>B</sub>	±12.0	±14.0	±16.0	dB	
Middle boost • Cut gain	G <sub>M</sub>	±10.0	±12.0	±14.0	dB	
Treble boost • Cut gain	G <sub>T</sub>	±10.0	±12.0	±14.0	dB	

● Application circuit

