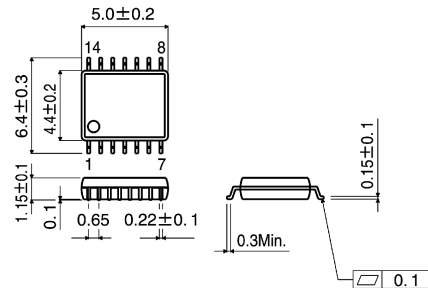


## Line amplifier for CD-ROM/DVD-ROM **BH3527FV**

### Description

The BH3527FV is a line amplifier that elevates the audio analog signal for CD-ROMs. The IC includes an output mute circuit to reduce POP noise caused by the power being turned OFF and ON.

### Dimension(Units:mm)



SSOP-B14

### Features

- 1) Built-in 2 line amplifiers (3.5dB)
- 2) Built-in output mute circuit
- 3) Few external components

### Applications

CD-ROM, DVD-ROM, Game machines

### Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V <sub>MAX</sub>	7.0	V
Power dissipation	P <sub>d</sub>	400 *	mW
Operating temperature range	T <sub>opr</sub>	-25 ~ +75	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ +125	°C

\*Derating: 4.0mW/°C for operation above Ta=25°C.

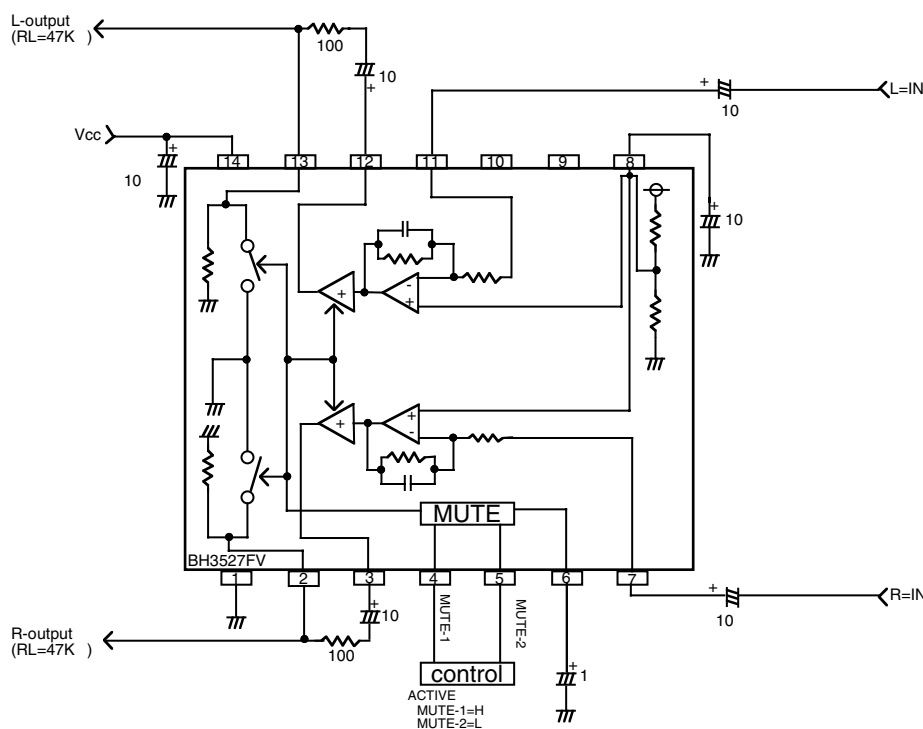
### Recommended Operating Conditions(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	V <sub>CC</sub>	3.5	-	5.5	V
Load resistance	R <sub>L</sub>	-	47	-	kΩ

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Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Quiescent current	I <sub>q</sub>	2.0	3.4	6.0	mA	V <sub>O</sub> =0V <sub>rms</sub>
Mute terminal "H" level voltage	VMH	2.4	-	-	V	
Mute terminal "L" level voltage	VML	-	-	0.8	V	
Mute terminal source current	IMH	-	42.0	90.0	A	V <sub>m</sub> =5.0V (mode: High)
Mute terminal source current	IML	-90.0	-39.0	-	A	V <sub>m</sub> =0.3V (mode: Low)
Voltage gain	G <sub>vc</sub>	2.4	3.4	4.4	dB	V <sub>O</sub> =1.0V
Differential channel voltage gain	ΔG <sub>vc</sub>	-0.5	0.0	0.5	dB	V <sub>O</sub> =1.0V
Total harmonic distortion	THD	-	0.016	0.03	%	
Maximum output voltage	V <sub>O</sub> MAX	0.7	1.0	-	V <sub>rms</sub>	THD=0.01%
Output noise voltage	V <sub>NO</sub>	-	15	30	V	DIN Audio
Channel separation	CS	85	100	-	dB	
Mute attenuation	ATT	65	77	-	dB	
Ripple rejection rate	RR	45	55	-	dB	V <sub>RR</sub> =-20dBV, 100Hz
Input resistance	R <sub>IN</sub>	50	65	75	k	

## Application circuit



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