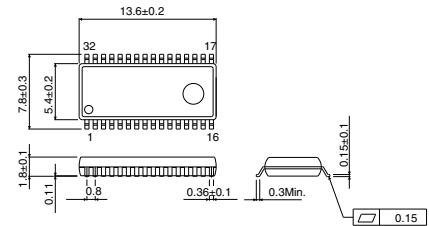


Sound processor for DVD player BD3824FS

● Description

BD3824FS is a single chip IC for DVD recorder application. Each function of 5-channel input selector, input gain, tuner gain, ALC, line amplifier and power save ON/OFF can be controlled by I²C BUS.

● Dimension (Unit : mm)



SSOP-A32

● Features

- 1) Low distortion rate and low noise
- 2) Built-in ALC circuit can be used as RF output
- 3) Perfect for low current consumption and energy saving design due to BiCMOS process
- 4) SSOP-A32 package. Layout terminals for audio input and audio output are located together to arrange the flow of signal in the same direction enabling an easy pattern layout and saving space on the board.
- 5) Same PCB board as BD3822FS is available.
I²C BUS software of BD3822FS can be used without any modification.
- 6) Original system is applied, which its input (tuner, FRONT, EXT) waveform is not distorted at I²C BUS standby mode.

● Applications

DVD recorder

● Absolute Maximum Ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|-----------------------------|------------------|-------------|------|
| Maximum applied voltage | V _{cc} | 10.0 | V |
| Power dissipation | P _d | 950 * | mW |
| Operating temperature range | T _{opr} | D40 to +85 | °C |
| Storage temperature range | T _{stg} | D55 to +125 | °C |

*Derating : 9.5mW/°C for operation above Ta=25°C

*PCB (70mmX70mm,t=1.6mm) glass epoxy mounting.

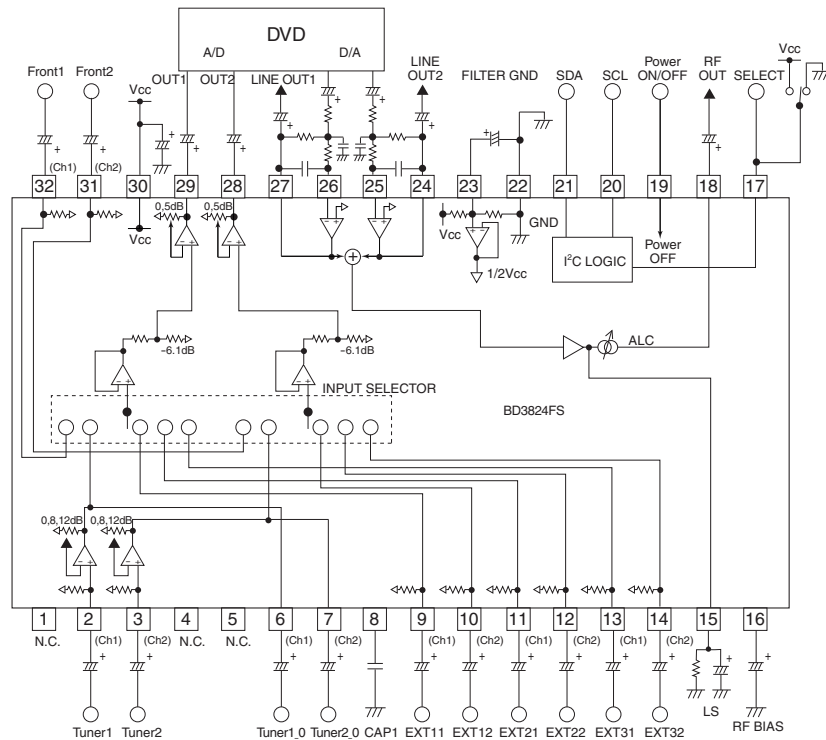
● Operating Conditions (Ta=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|----------------|-----------------|------|------|------|------|
| Supply voltage | V _{cc} | 7.0 | 9.0 | 9.5 | V |

- Electrical characteristics (Unless otherwise noted; $T_a=25^\circ\text{C}$, $V_{cc}=9\text{V}$, $f=1\text{kHz}$, $V_{IN}=1\text{Vrms}$, $R_g=600\Omega$, $R_{L1}=4.7\text{k}\Omega$ (LINE OUT1,2), $R_{L2}=10\text{k}\Omega$ (OUT1, OUT2, RF OUT, Tuner1_0, 2_0), input terminal=Front1, Output terminal=OUT1, Gain amp=0dB, Tuner gain=0dB)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-----------------------------------|-----------|------|--------|------|-------|---|
| Circuit current at no signal mode | I_Q | - | 6.4 | 19.2 | mA | $V_{IN}=0\text{Vrms}$ |
| Standby current | I_{OFF} | - | 940 | 1760 | mA | 「Power OFF」 MODE |
| Maximum output voltage 1 | V_{OM1} | 1.68 | 2.1 | - | Vrms | Output terminal=OUT1/OUT2, $R_{L2}=10\text{k}\Omega$, V_{OM} at THD(V_{OUT})=1%, Gain Amp=5dB, BW=400~30kHz |
| Maximum output voltage 2 | V_{OM2} | 2.2 | 2.5 | - | Vrms | Output terminal=LINE OUT1/LINE OUT2, $R_{L1}=4.7\text{k}\Omega$, V_{OM} at THD(V_{OUT})=1%, External LPF Gvc=6dB, BW=400~30kHz |
| Channel balance | CB | -1.5 | 0 | 1.5 | dB | $CB=G_{V1}-G_{V2}$ |
| Total harmonic distortion rate | THD | - | 0.0015 | 0.05 | % | $V_{OUT}=2\text{Vrms}$, BW=400-30kHz |
| Output noise voltage | V_{NO} | - | 2.3 | 11.5 | mVrms | $R_g=0\Omega$, BW=IHF-A |
| Cross talk between channels | CTC | - | -100 | -80 | dB | $R_g=0\Omega$, BW=IHF-A |

- Application Circuit



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