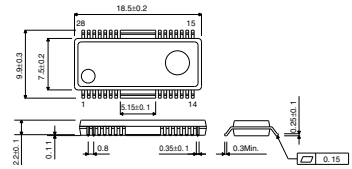
5-channel driver for CD/DVD players

BA5815FM

●Description

The BA5815FM is a power driver IC for 5-channel CD and DVD players. Two channels incorporate filters and can connect PWM input directly. The additional 2 channels incorporate a standard operational amplifier. It can reduce the external components greatly. In the loading driver, output voltage can be adjusted to each device.

●Dimension (Units : mm)



HSOP-M28

●Features

1) 4-channel BTL driver and 1-channel reversible driver
2) 2 channels are PWM input direct-coupled type. (Built-in primary filter)
3) 2 channels have standard operational amplifiers.
4) The device can be miniaturized due to the adoption of HSOP-M28 power package.
5) Built-in thermal shut down circuit
6) Wide dynamic range(9.2V(Typ.) at Vcc=12V, RL=8Ω)

●Applications

DVD, CD players

●Absolute Maximum Ratings(Ta=25˚C)

Parameter	Symbol	Limits	Unit
Power supply voltage	Vcc	13.5	V
Power dissipation	Pd	2.2 *	W
Operating temperature range	Topr	–40 ~ +85	˚C
Storage temperature range	Tstg	–55 ~ +150	˚C

*Derating : 17.6 mW/˚C for operation above Ta=25˚C (70×70×1.6mm) glass epoxy board

●Recommended Operating Conditions(Ta=25˚C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	Vcc	4.3	12.0	13.2	V

● Electrical characteristics

(Unless otherwise noted; Ta=25˚C, Vcc1,2=12V, BIAS=1.65V, R_L=8Ω)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
<BTL driver(CH1, CH2)>						
Output offset voltage	VOOF12	–50	—	50	mV	
Maximum output voltage	VOM12	7.7	9.2	10.7	V	Vf=5V, Vr=0V
<BTL driver(CH3, CH4)>						
Output offset voltage	VOOF34	–50	0	50	mV	
Maximum output voltage	VOM34	7.7	9.2	10.7	V	
Voltage gain	GVC	16.0	18.0	20.0	dB	
<Pre–operational amplifier(CH3, CH4)>						
Input offset voltage	VOFOP	–6	0	6	mV	
Output high level voltage	VOH	11.5	—	—	V	BIAS=6V
Output low level voltage	VOL	—	—	0.5	V	BIAS=6V
<Loading driver>						
Output saturation voltage 1	VSATL1	0.7	1.1	1.6	V	Upper+Lower IL=200mA
Output saturation voltage 2	VSATL2	1.0	1.55	2.3	V	Upper+Lower IL=500mA
Output "H" voltage gain	GVH	7.4	9.2	11.0	dB	

* This product is not designed for protection against radioactive rays.

● Application Circuit