

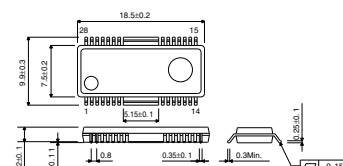
## 5-channel driver for CD/DVD players

# 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;  $T_a=25^{\circ}\text{C}$ ,  $V_{cc1,2}=12\text{V}$ ,  $\text{BIAS}=1.65\text{V}$ ,  $R_L=8\Omega$ )

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	$V_f=5\text{V}$ , $V_r=0\text{V}$
<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	$\text{BIAS}=6\text{V}$
Output low level voltage	VOL	—	—	0.5	V	$\text{BIAS}=6\text{V}$
<Loading driver>						
Output saturation voltage 1	VSATL1	0.7	1.1	1.6	V	Upper+Lower $I_L=200\text{mA}$
Output saturation voltage 2	VSATL2	1.0	1.55	2.3	V	Upper+Lower $I_L=500\text{mA}$
Output "H" voltage gain	GVH	7.4	9.2	11.0	dB	

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

● Application Circuit

