

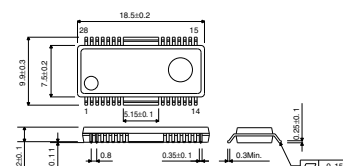
## 5-channel driver for CD/DVD players

### 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    |

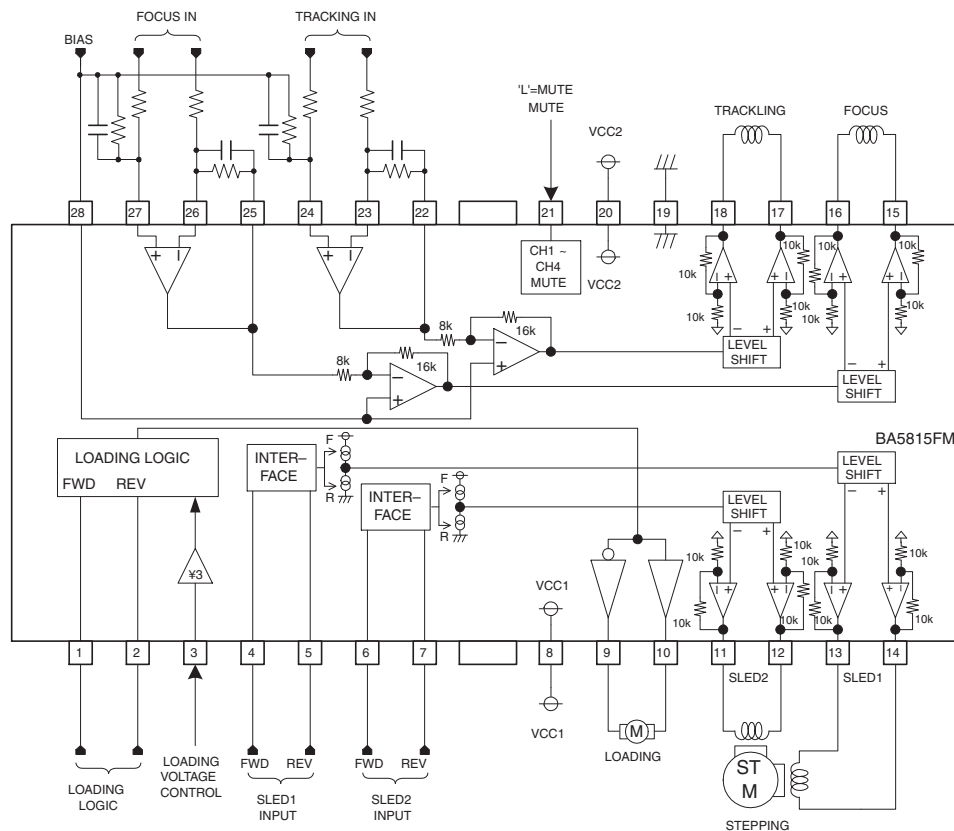
● Electrical characteristics

(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



This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.