

4channel driver for CD/DVD players

BA5821FP

The BA5821FP is a 4channel BTL driver for CD/ CD-ROM, DVD player motors and actuators.

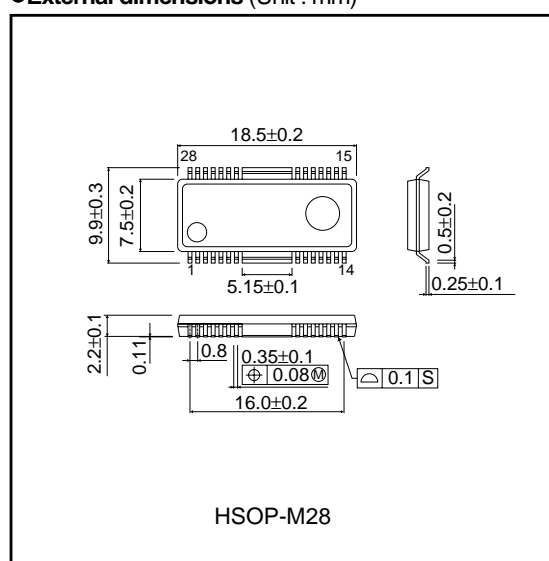
●Features

- 1) 4ch BTL Driver.
- 2) Small surface mounting power package (HSOP28).
- 3) Wide dynamic range.
- 4) Thermal shut down circuit built in.
- 5) Separating Vcc into Pre and Power (Power divides into CH1, CH2 and CH3/4), can make better power efficiency, by low supply voltage drive.
- 6) Mute operated individually CH1, CH2 and CH3/4.
- 7) Muting all channels causes the IC to enter the stand by mode.

●Applications

CD, CD-ROM, DVD

●External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	PreVcc, PowVcc	13.5	V
Power dissipation	Pa	1.7 *1	W
Max. output current	Iomax	1 *2	A
Operating temperature	Topr	−35 to +85	°C
Storage temperature	Tstg	−55 to +150	°C

*1 On less than 3% (percentage occupied by copper foil), 70×70mm², t=1.6mm, glass epoxy mounting.
Reduce power by 13.6mW for each degree above 25°C.

*2 The output current must not exceed the maximum Pd and ASO.

●Recommended operating conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating supply voltage range	PreVcc	4.5	—	13.2	V
	PowVcc	4.5	—	PreVcc	

Optical disc ICs

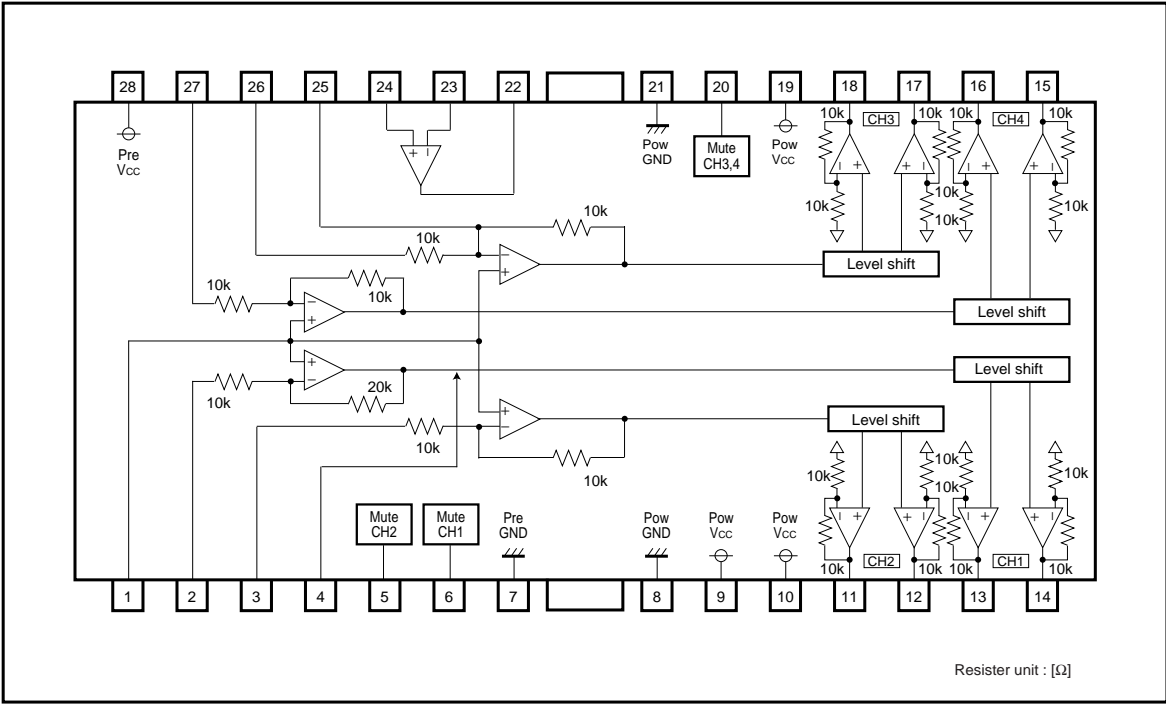
●Electrical characteristics

(Unless otherwise noted Ta=25°C, Pre Vcc=12V, Pow Vcc=1/2=12V, Pow Vcc3=5V, VBIAS=1.65V, RL=8Ω)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
< Driver block >						
Output offset voltage	VOOF	-50	0	+50	mV	
Maximum output voltage 1	VOM1	3.6	4.0	-	V	VIN = VBIAS±1.65V
Maximum output voltage 2	VOM2	7.5	9.0	-	V	VIN = VBIAS±VCC/2, VBIAS = VCC/2 *
Maximum output voltage 3	VOM3	8.5	9.5	-	V	VIN = VBIAS±1.65V, RL = 10Ω *
Closed loop voltage gain 1	GVC1	10	12	14	dB	CH2,3,4 VIN = VBIAS±0.5V
Closed loop voltage gain 2	GVC2	16	18	20	dB	CH1, VIN = VBIAS±0.3V *
Voltage limit I/O gain	GVL	11	12	13	dB	CH1, VLIMIT ≥ 1V
Voltage limit input bias current	VBVL	-	-	300	nA	CH1
< Pre operational amplifier >						
Input offset voltage	VOFOP	-6	0	+6	mV	
High level output voltage	VOHOP	-6	0	+6	mV	IL = +450μA, VIN = 5V
Low level output voltage	VOLOP	-	0.1	0.3	V	IL = -1mA, VIN = GND

© This product is not designed for protection against radioactive rays.
* Pow VCC=12V

●Block diagram



Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.