5 Channel Driver for CD/CD-ROM
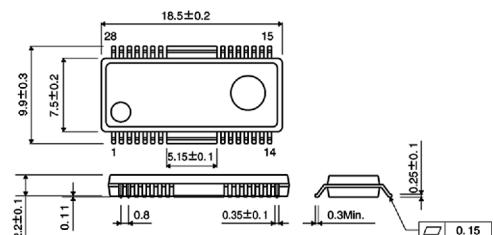# BA5811FM

● Description

The BA5811FM is 5-channel driver including 4-channel BTL drivers and 1-channel reversible motor driver for CD/CD-ROM applications. Separating Vcc into Pre and Pow can make the power more efficient. A power-saving mode is enabled by a power-save terminal.

● Features

1) Small surface mounting power package HSOP-M28
2) Thermal shut down circuit built-in
3) Wide dynamic range
   (4.0V typical at PREVCC=12V, POWVCC=5V)
4) 4-channel BTL driver
   (2-channel is able to be used for a stepping motor)
5) The output voltage is adjustable by the voltage control terminal.

● Applications

CD, CD-ROM

● Dimension(Units : mm)

HSOP-M28

● Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Limits	Unit
Power supply voltage	PREVCC, POWVCC	18	V
Power dissipation	Pd	2.2*	W
Operating temperature range	Topr	−40 ~ +85	˚C
Storage temperature range	Tstg	−55 ~ +150	˚C

Derating:17.6mV/˚C for operation above Ta=25˚C.
On less than 3% (percentage occupied by copper foil), 70mm¥70mm, t=1.6mm, glass epoxy mounting.

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●Guaranteed operating ranges(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating supply voltage	PREVCC	4.3	—	13.2	V
	POWVCC	4.3	—	PREVCC	V

●Electrical characteristics
　(Unless otherwise noted, Ta=25°C, PREVCC=12V, POWVCC12/34=5V, BIAS=1.65V, PS=2V, RL=8)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Quiescent current	ICC	—	24	35	mA	No load
Power save on current	IPS	—	1.6	2.8	mA	PS="L"
< BTL driver >						
Output offset voltage	VOO	−50	0	50	mV	
Max. output voltage	VOM	3.6	4.0	—	V	
Closed loop voltage gain	GVC	13.6	15.6	17.6	dB	
< OP-AMP (CH3, 4) >						
Input offset voltage	VOFOP	−6	0	6	mV	
High level output voltage	VOHOP	11.5	—	—	V	BIAS=6V
Low level output voltage	VOLOP	—	—	0.5	V	BIAS=6V
< Loading driver >						
Output saturation voltage1	VSAT1	0.7	1.2	1.7	V	IL=200mA (Upper + Lower)
Output adjustable gain on "H" side voltage	GVH	7.2	9.0	10.8	dB	"H"side output for input (LDCNT)

　This product is not designed for protection against radioactive rays.

●Application circuit