

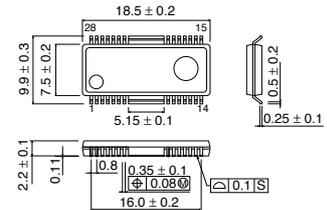
# IC for Compact Disc Players

## BA5947FP

### ● Description

The BA5947FP is a 4-channel BTL driver developed for compact disc players. 3 out of 4 channels are PWM input direct connection type and incorporate primary filter.

### ● Dimension (Unit : mm)



**HSOP28**

### ● Features

- 1) 4-channel BTL driver
- 2) Set space saving by adoption of HSOP28
- 3) Built-in OP amp.
- 4) Wide dynamic range
- 5) Built-in thermal shutdown circuit
- 6) High efficient supply voltage setting due to independent supply (Pre Vcc, Pow Vcc of CH1, CH2 and Pow Vcc of CH3, CH4)
- 7) For CH4, input pin can be switched by SW pin

### ● Applications

Compact disc players, Other optical disc appliances

### ● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	Vcc	13.5	V
Power dissipation	Pd	1.7 *	W
Operating temperature range	Topr	-35 ~ +85	°C
Storage temperature range	Tstg	-55 ~ +150	°C

\*Derating : 13.6mW/°C for operation above Ta=25°C

\*On less than 3% (percentage occupied by copper foil), PCB (70mmx70mm, t=1.6mm) glass epoxy mounting.

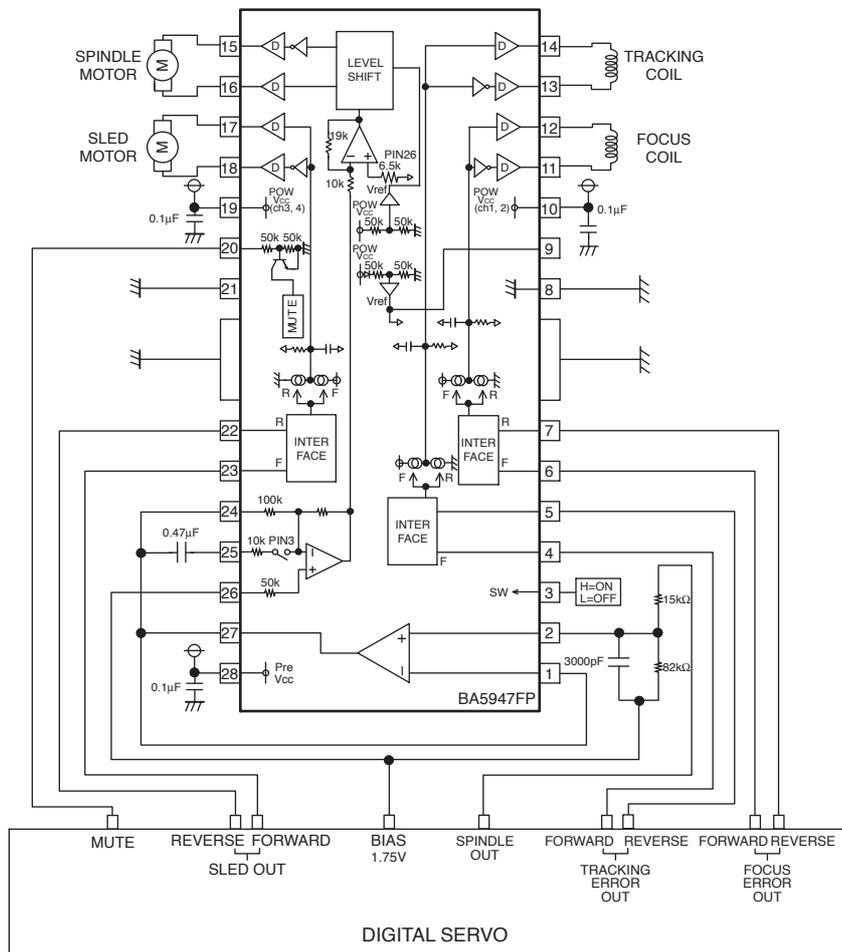
### ● Operating power supply voltage range (Ta=25°C)

Parameter	Min.	Typ.	Max.	Unit
Pre Vcc	6.0	—	13.2	V
Pow Vcc	6.0	—	Pre Vcc	V

● Electrical characteristics (Unless otherwise noted; Ta=25°C, Vcc=8V, RL=8Ω, Vb=VOP±=1.75V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Quiescent dissipation current	I <sub>Q</sub>	—	17.0	25.0	mA	No load
Internal Vref pin voltage	VREF	3.40	3.70	4.00	V	
<Driver except spindle driver (CH1,2,3)>						
Output offset voltage	V <sub>OO</sub>	-30	—	30	mV	
Maximum output amplitude	V <sub>OM</sub>	4.4	5.0	5.6	V	V <sub>f</sub> =5V, V <sub>r</sub> =0V
Spindle driver (CH4)						
Output offset voltage	V <sub>OO4</sub>	-50	—	50	mV	V <sub>IN4</sub> =V <sub>b</sub>
Maximum output amplitude	V <sub>OM</sub>	—	5.4	—	V	V <sub>b</sub> =4V
Voltage gain	GVC	9.3	11.3	13.3	dB	
<OP amp.>						
Offset voltage	V <sub>OFOP</sub>	-5	0	5	mV	
Output driving current sink	I <sub>sink</sub>	2.0	9.0	—	mA	
Output driving current source	I <sub>SOURCE</sub>	7.0	13.0	—	mA	

● Application Circuit



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