

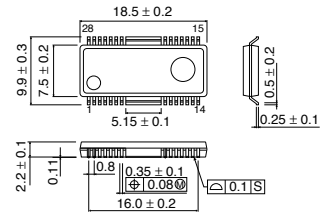
IC for Compact Disc Players

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; $T_a=25^{\circ}\text{C}$, $V_{cc}=8\text{V}$, $R_L=8\Omega$, $V_b=V_{OP}\pm 1.75\text{V}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Quiescent dissipation current	I_Q	—	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_{OO}	-30	—	30	mV	
Maximum output amplitude	V_{OM}	4.4	5.0	5.6	V	$V_f=5\text{V}$, $V_r=0\text{V}$
Spindle driver (CH4)						
Output offset voltage	V_{OO4}	-50	—	50	mV	$V_{IN4}=V_b$
Maximum output amplitude	V_{OM}	—	5.4	—	V	$V_b=4\text{V}$
Voltage gain	GVC	9.3	11.3	13.3	dB	
<OP amp.>						
Offset voltage	V_{OFOP}	-5	0	5	mV	
Output driving current sink	I_{sink}	2.0	9.0	—	mA	
Output driving current source	I_{SOURCE}	7.0	13.0	—	mA	

● Application Circuit

