

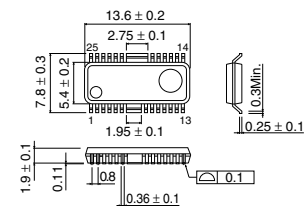
Power Driver for CD, DVD Player

BA5912BFP

● Description

BA5912BFP is a 2-channel BTL driver for CD and DVD driving actuator and motor. Two standard operational amplifiers are incorporated. For driver, level shift circuit is incorporated. This allows the reduction of external components.

● Dimension (Unit : mm)



HSOP25

● Features

- 1) Adopting power package of HSOP25 results in a smaller set.
- 2) Wide dynamic range
- 3) Output current can be mute by external mute pins.
(ch1, ch2 mute independently)
When both channels are mute, it converts to standby mode.
- 4) 3-power supply (Pre Vcc, ch1 Pow Vcc, ch2 Pow Vcc)
- 5) Built-in two standard operational amplifiers
- 6) Built-in thermal shut down circuit

● Applications

CD, DVD players

● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power supply voltage	Vcc	13.5	V
Power dissipation	Pd	1.45 *	W
Operating temperature range	Topr	-35 ~ +85	°C
Storage temperature range	Tstg	-55 ~ +150	°C

*Derating : 11.6mW/°C for operation above Ta=25°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Pre-amp. supply voltage	Pre Vcc	4.5	5.0	13.2	V
Power amp. supply voltage	Pow Vcc	4.5	5.0	Pre Vcc	V

●Electrical characteristics (Unless otherwise noted: Ta=25°C, Pre Vcc, Pow Vcc=5V, BIAS=2.5V, RL=8Ω)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Current consumption at no signal	I _{CC}	—	9.0	14.0	mA	No load, REF1,2 ≥ 2.0V
Circuit current at standby mode	I _{SCC}	—	0	100	μA	No load, REF1,2 ≥ 0.5V
<Driver>						
Output offset voltage	V _{OO}	−50	0	50	mV	
Maximum output amplitude 1	V _{OM1}	3.2	3.5	—	V	REF1,2 ≤ 0.5V
Maximum output amplitude 2	V _{OM2}	3.7	4.0	—	V	Pre V _{CC} =12V, Pow V _{CC} =5V, REF1,2>2.0
Quiescent circuit voltage gain	G _{VC}	10.0	11.5	13.0	dB	V _{in} =BIAS ± 0.5V
<OP-AMP>						
Offset voltage	V _{OFO} P	−5	0	5	mV	
Input bias current	I _{BOP}	—	—	300	nA	
High level output voltage	V _{OHO} P	4.00	4.36	—	V	
Low level output voltage	V _{OLO} P	—	0.74	1.1	V	
Output drive current (sink)	I _{sink}	10	50	—	mA	V _{CC} at 50Ω
Output drive current (source)	I _{SOURCE}	10	40	—	mA	GND at 50Ω
Slew rate	S _{R0P}	—	1.0	—	V/μs	100kHz square wave, 4Vp-p output

●Block Diagram

