

Specifications of Bipolar Driver Circuit Board BD202412-S

- For Ringpump RP-S06 / RP-2S06 / RP-WII04 series -

1. Power supply voltage DC 24V
2. Drive system Limited to Quarter (1/4) steps



Quarter Step Drive Waveform (CLK: 2400Hz) (z)

3. Output current 1.6A

Applicable Stepper Motor :

- NKM-17D60A4 for Ringpump RP-S06 series
- NKM-17D80A4 for Ringpump RP-2S06 series
- NKM-17D80A4 for Ringpump RP-W II series

4. CW/CCW switching High = CW Low = CCW
Select High when the voltage is higher than 2.0V and lower than 5.0V.
Select Low when the voltage is lower than 0.8V.
5. Start/Stop High = Start Low = Stop
Select High when the voltage is higher than 2.0V and lower than 5.0V.
Select Low when the voltage is lower than 0.8V.

6. Driver IC BD63725BEFV (ROHm)

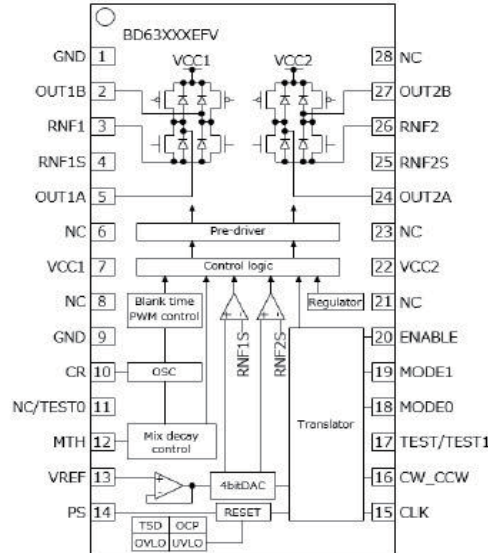


Figure 2 Driver Block

Terminal Number	Name	Function	Terminal Number	Name	Function
1	GND	Ground Terminal	15	CLK	Phase-Forward Clock Input Terminal
2	OUT1B	H-bridge output terminal	16	CW_CCW	Motor rotation direction setting terminal
3	RNF1	Resistor connection terminal for current sensing	17*1	TEST	Test terminal (used by connecting to GND)
4	RNF1S	Current-sense comparator input terminal		TEST1	Test terminal
5	OUT1A	H-bridge output terminal	18	MODE0	Motor excitation mode setting terminal
6	NC	Non-connection	19	MODE1	Motor excitation mode setting terminal
7	VCC1	Power Terminal	20	ENABLE	Output Enable Terminal
8	NC	Non-connection	21	NC	Non-connection
9	GND	Ground Terminal	22	VCC2	Power Terminal
10	CR	Chopping frequency setting terminal	23	NC	Non-connection
11*1	NC	Non-connection	24	OUT2A	H-bridge output terminal
	TEST0	Test terminal	25	RNF2S	Current-sense comparator input terminal
12	MTH	Current attenuation method setting terminal	26	RNF2	Resistor connection terminal for current sensing
13	VREF	Output current value setting terminal	27	OUT2B	H-bridge output terminal
14	PS	Power Save Terminal	28	NC	Non-connection

* 1 : Upper row BD63715AEFV, BD63725BEFV, BD63525AEFV

7. Clock terminal

Duty : 50%

Select High when the voltage is higher than 2.8V and lower than 5.0V.

Select Low when the voltage is lower than 0.6V.

RP-S06 * -600Z-DC24VS / RP-2S06 * -1300Z-DC24VS / RP-W II 04F-700Z-DC24VS

Continuous Driving Max : 3333Hz 833PPS 250rpm

Frequency (Hz)	40	400	1000	2000	2400	2800	3333	4000
PPS	10	100	250	500	600	700	833	1000
Rotation (rpm)	3	30	75	150	180	210	250	300

* If it is more than 250 rpm, increase the rotation speed from about 210 rpm to prevent loss of synchronism.

Intermittent Drive

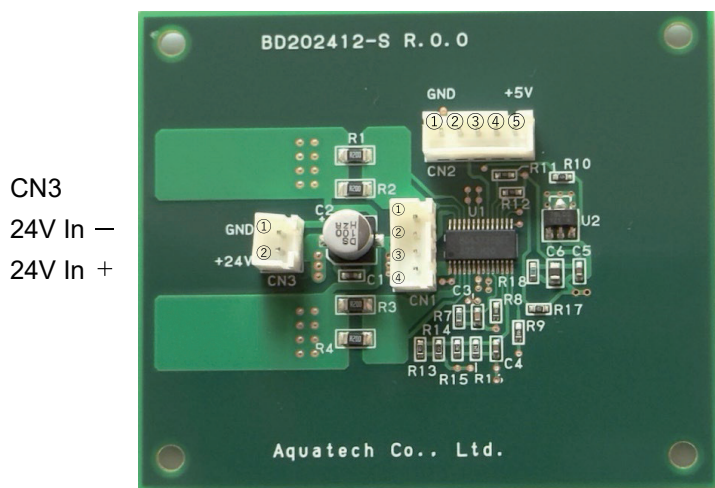
ON time Max 30min.

ON : OFF time=1 : 1

8. Optical terminal

DC5.0V 15mA Output terminal (CN2 ⑤Pin)

9. Explanation of Bi-polar Driver Board **BD202412-S** 70 x 80□



CN3
24V In -
24V In +

Board-side male connector

B*B-XH-A Series/JST

Connection-side female connector

XHP* Series/JST

Contact Pin

BXH-001T-P0.6

CN1

Stepper motor connection

- ① B+ Red
- ② B- Blue
- ③ A+ Black
- ④ A- Green

CN2

Control circuit connection

- ① GND
- ② CLK
- ③ START/STOP
- ④ CW/CCW
- ⑤ DC5V-out

CN3

Power Input

- ① DC24V In -
- ② DC24V In +

[An example of control board connection circuit]

