

Intelligent PWM™ by ROHM

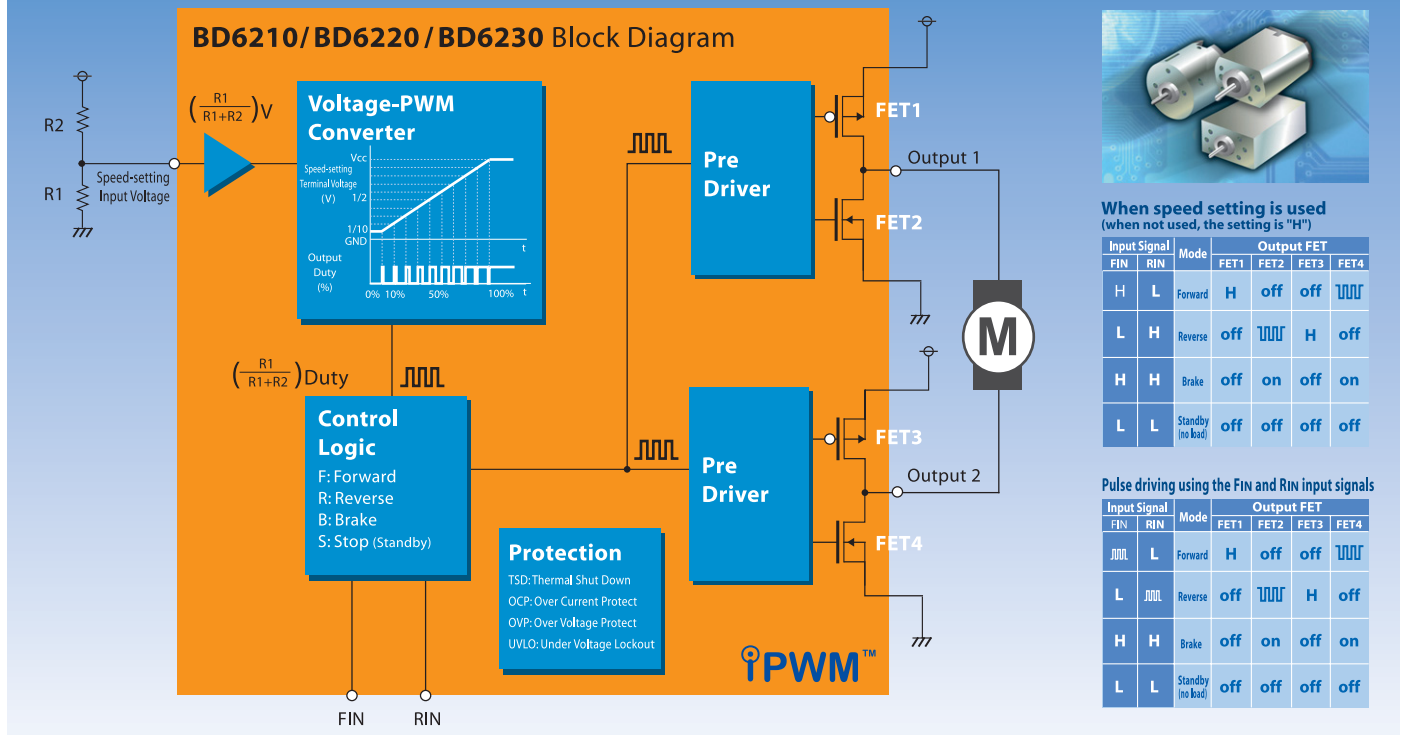
PWM Variable Speed DC Brush Motor Drivers

No.E7034



BD621□ / BD622□ / BD623□ Series

PWM Controlled DC Brush Motor Driver



Overview

ROHM's PWM variable speed high-efficiency DC brush motor drivers perform PWM conversion of the input voltage to control the speed while driving by switching the output MOSFETs. In addition, PWM control via control input terminal is supported, making this motor driver series extremely easy to use.

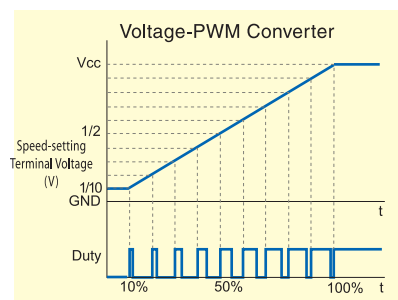
Features

- Automatic speed-setting input voltage-PWM conversion
- PWM signals can also be input using a control input terminal.
- Voltage resistances: 7V, 18V, and 36V 1ch/2ch selectable input
- Selectable output currents of 0.5A, 1A, and 2A
- All packages have the same pinout configuration for ease of use
- Built-in through-current prevention circuit
- Multiple built-in protection circuits

TSD : Thermal Shut Down
OCP : Over Current Protection
OVP : Over Voltage Protection
UVLO : Under Voltage Lock Out

Advantage 1 High efficiency! Unique PWM conversion circuit built in

Easy High-efficiency PWM Driving



By merely inputting the speed-setting voltage, the voltage is converted automatically to PWM to drive the switching of output MOSFETs. Direct input of PWM is also enabled through FIN and RIN.

Advantage 2 High efficiency! Low power consumption!

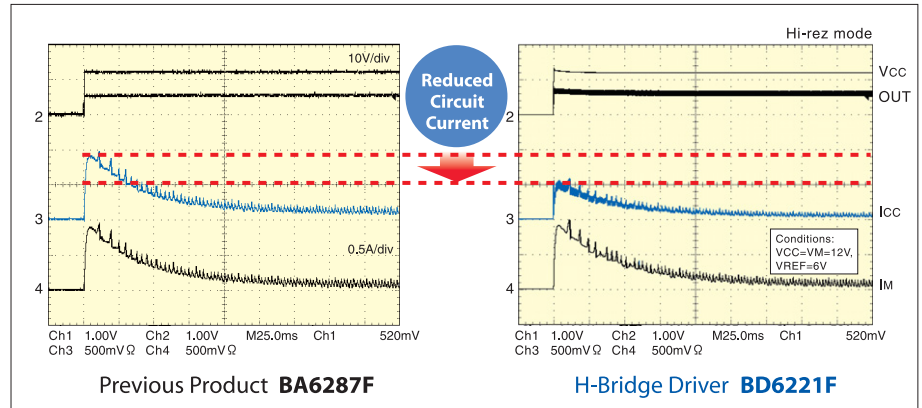
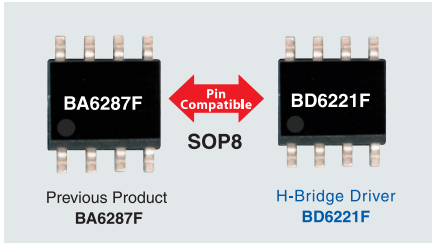
The FETs Have Zero Standby Current and Low ON Resistance

- Built-in power MOSFETs with low ON resistance. Product line with withstand output voltages of 7V, 18V, and 36V
- Through-current prevention circuit built in
- Zero standby current and integrated malfunction prevention circuit during standby
- Low ON resistance

Advantage 3 0.5A through 2.0A models use identical packages, making it easy to accommodate changes in motor specifications

Flexible Product Lineup Easily Handles Motor Specification, Current, and Voltage Changes

ROHM's new H-bridge drivers provide high efficiency at low power, and since these products use the same package as prior models, replacement is easy.



Pin Compatible Lineup

Number of Channels	Package	Permissible Loss	0.5A Output	1.0A Output	2.0A Output
1ch	SOP8	690mW	7V BD6210F 18V BD6220F 36V BD6230F	7V BD6211F 18V BD6221F 36V BD6231F	—
	HRP7	5,500mW	7V BD6210HFP 18V BD6220HFP 36V BD6230HFP	7V BD6211HFP 18V BD6221HFP 36V BD6231HFP	7V BD6212HFP 18V BD6222HFP 36V BD6232HFP
	HSOP25	1,450mW	—	—	7V BD6212FP 18V BD6222FP 36V BD6232FP
2ch	SSOP-B24	980mW	7V BD6215FV 18V BD6225FV 36V BD6235FV	—	—
	HSOP25	1,450mW	7V BD6215FP 18V BD6225FP 36V BD6235FP	7V BD6216FP 18V BD6226FP 36V BD6236FP	—
	HSOP-M28	2,220mW	—	7V BD6216FM 18V BD6226FM 36V BD6236FM	7V BD6217FM 18V BD6227FM 36V BD6237FM

Note: The permissible loss values apply when mounted on a 70mm x 70mm x 1.6mm glass epoxy resin circuit board.

Complete DC Brush Motor Drivers Lineup

Maximum Voltage	Number of Channels	Output Current		
		0.5A	1.0A	2.0A
7V	1ch	BD6210HFP BD6210F	BD6211HFP BD6211F	BD6212HFP BD6212FP
	2ch	BD6215FV BD6215FP	BD6216FP BD6216FM	BD6217FM
18V	1ch	BD6220HFP BD6220F	BD6221HFP BD6221F	BD6222HFP BD6222FP
	2ch	BD6225FP BD6225FV	BD6226FP BD6226FM	BD6227FM
36V	1ch	BD6230HFP BD6230F	BD6231HFP BD6231F	BD6232HFP BD6232FP
	2ch	BD6235FV BD6235FP	BD6236FP BD6236FM	BD6237FM