

Featured Products



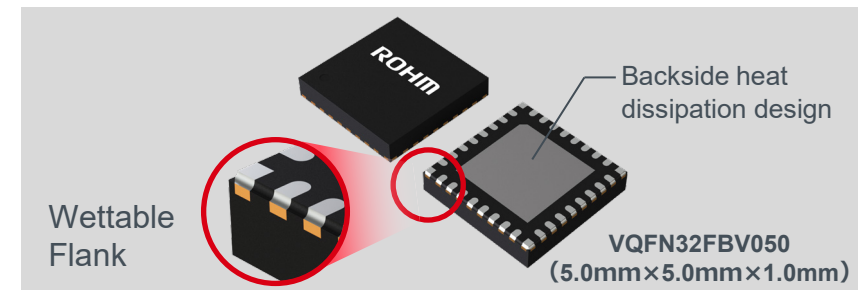
Achieves class-leading* low ON resistance

Automotive Stepper Motor Driver

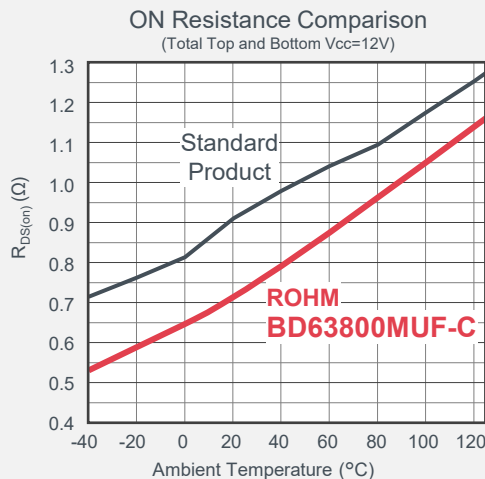
BD63800MUF-C

*ROHM October 2021 study

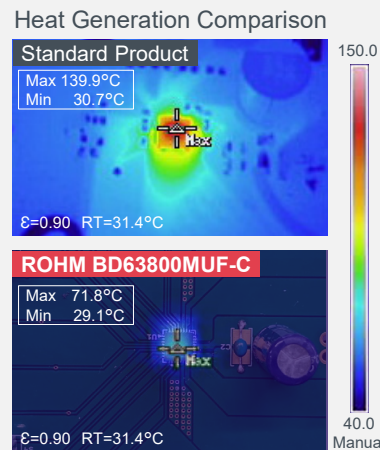
- Delivers the lowest ON resistance in its class (0.75Ω)
- Built-in stall detection function
- Compact package supports smaller ECUs (With backside heat sink)



Comparison of ON Resistance and Heat Generation

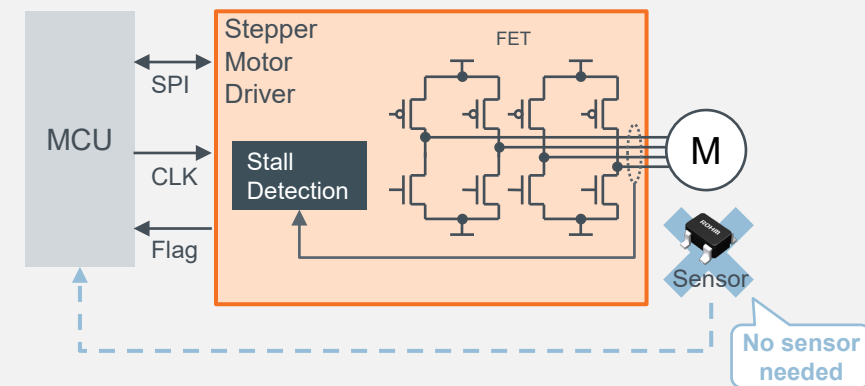


Class-leading low ON resistance



Low heat generation

Stall Detection Function Enables Monitoring of Motor Status Without an External Sensor



Prevents motor malfunction by detecting the stall state from the back EMF voltage of the motor and sending an error signal to the MCU

Primary Functions

- **SPI/CLK-IN drive**
- Constant current PWM control (RREF); **no shunt resistor needed**
- Supports Full, Half, Quarter, 1/8, 1/16, 1/32 step
- Built-in spike noise blanking function
- Forward/reverse switching (CWB)
- Power save (PSB)
- 2 error detection flag outputs (DIAG1, DIAG2)
 - Overcurrent Overheat **Stall detection**
 - Overvoltage Open detection Overheat warning
- Under voltage lock out (UVLO)
- Ghost supply prevention

Application Examples

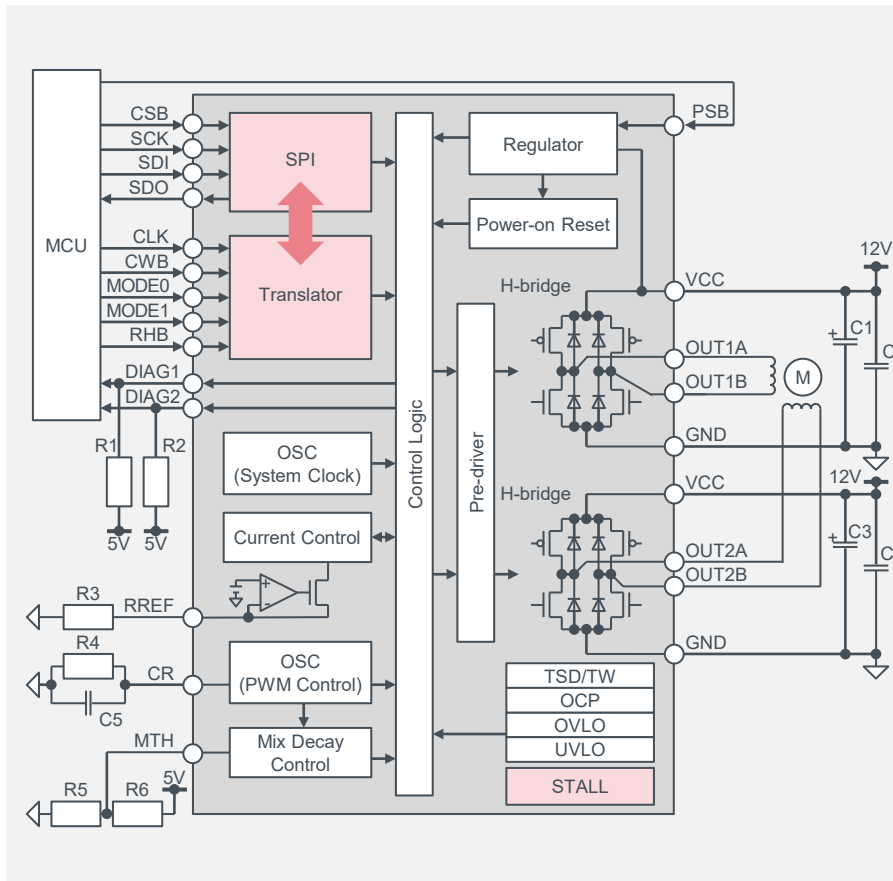
Automotive

Head up displays (HUD), headlight optical axis adjustment (leveling/swiveling), heat pumps, air control valves, meters, electronic throttle/suspension control, power seats, etc.

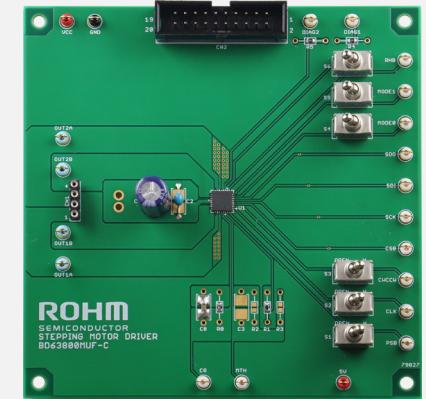
Industrial Equipment

Printers, scanners, home/factory automation, surveillance cameras, robots, etc.

Sample Circuit



Immediately Begin Evaluation (Evaluation Board and User Guide Available)



BD63800MUF-EVK-001

User Guide [Quick Link](#)

An evaluation board with onboard MCU is also offered. Please contact us for details.

Other Materials

Application Note [Quick Link](#)

Product Datasheet [Quick Link](#)

Specifications

Part No.	Withstand Voltage (V)	Supply Voltage (V)	Output Current (A) [Peak Current (A)]	Control Input Signal	Drive	DECAY	Output ON Resistance Top and Bottom Typ (Ω)	Automotive Grade (AEC-Q100 Qualified)	Package
New BD63800MUF-C Web Page	40	6 to 28	1.2 [1.35*]	CLK/SPI	1/32	Slow/Fast/Mix/Auto	0.75	Grade 1	VQFN32FBV050

* Pulse width $tw < 1ms$, Duty 20% of pulse



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The information contained in this document is current as of October 1st, 2021.