

Product Overview

NCV7703B: Motor Driver, Triple, Half-Bridge, with SPI Control

For complete documentation, see the data sheet.

The NCV7703B is a fully protected Triple Half-Bridge Driver designed specifically for automotive and industrial motion control applications. The three half-bridge drivers have independent control. This allows for high side, low side, and H-Bridge control. H-Bridge control provides forward, reverse, brake, and high impedance states. The drivers are controlled via a standard SPI (Serial Peripheral Interface). This device is fully compatible with ON Semiconductor's NCV7708B Double Hex Driver.

Features

- Ultra Low Quiescent Current in Sleep Mode
- Power Supply Voltage Operation Down to 5 V
- 3 High-Side and 3 Low-Side Drivers Connected as Half-Bridges
- Internal Free-Wheeling Diodes
- Configurable as H-Bridge Drivers
- 0.5 A Continuous (1 A peak) Current
- $R_{DS(on)} = 0.8$ ohms (typ)
- 5MHz SPI Control with Daisy Chain Capability
- Compliance with 5 V and 3.3 V systems
- Overvoltage and Undervoltage Lockout

For more features, see the data sheet

Applications

- Automotive
- Industrial Motion Control

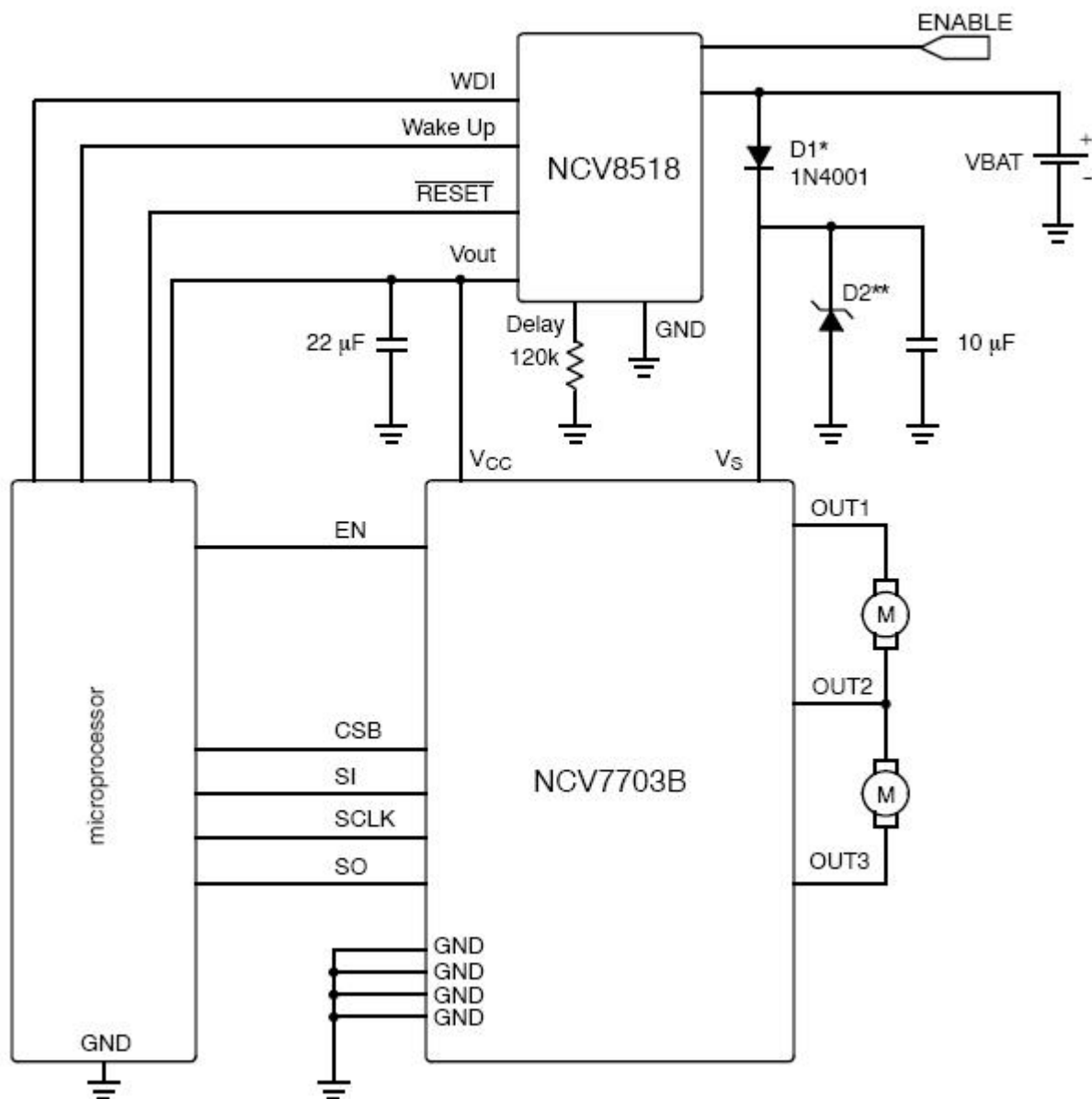
Benefits

- Meets low current requirements in automotive modules to prevent battery drain.
- Operation is maintained during automotive cranking.
- Capable of running 2 motors
- Protects the device from excessive voltages when driving inductive loads
- Motor drive capability in 2 directions
- Ideal for running automotive side-view mirrors
- Keeps internal power dissipation low
- Allows ease of use with comparable SPI controlled devices in the same system
- Interfaces well with most automotive microprocessors
- Prevents spurious drive at low voltage and device protection at high voltages

End Products

- DC Motor Management

Application Diagram



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