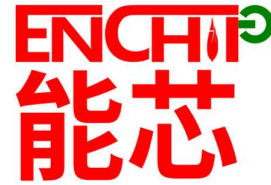


AXMC18841



2.5A Brushed DC Motor Driver (PWM Control)

Preliminary Datasheet — Jan 2022

Description

The AXMC18841 provides an integrated dual H-bridge motor driver solution for printers, scanners, and other automated equipment applications. The device can be used to drive one or two brushed DC motors, a bipolar stepper motor, or other loads. A simple PWM interface allows easy interfacing to controller circuits. The output driver block consists of N-channel power MOSFETs configured as H-bridges. The AXMC18841 can supply up to 2.5A peak or 1.75A RMS output current (with proper heat sinking at 24V and $T_A = 25^\circ\text{C}$) per H-bridge. A low-power sleep mode is provided which shuts down internal circuitry to achieve very low quiescent current draw. This sleep mode can be set using a dedicated nSLEEP pin. Internal protection features are provided for overtemperature, overcurrent, and undervoltage. Fault conditions are indicated by a nFAULT pin.

Features

- Dual H-Bridge DC Motor Driver
 - Single and Dual Brushed DC
 - Stepper
- PWM Control Interface
- Optional Fixed Frequency Current Regulation
 - Two Bit Current Control Allows Up to Four Current Levels
- Low MOSFET On-Resistance
 - 2.5A Maximum Drive Current at 24V and $T_A = 25^\circ\text{C}$
 - Combined 400m Ω $R_{DS(ON)}$ of High-Side and Low-Side at 24V and $T_A = 25^\circ\text{C}$
- 8.2V to 45V Operating Supply Voltage Range
- Low Current Sleep Mode
- Built-In 3.3V Reference Output
- Thermally Enhanced Surface Mount Package
- Protection Features
 - Overcurrent Protection (OCP)
 - Thermal Shutdown (TSD)
 - Undervoltage Lockout (UVLO)
 - Fault Condition Indication Pin (nFAULT)

Figure 1 Simplified Schematic

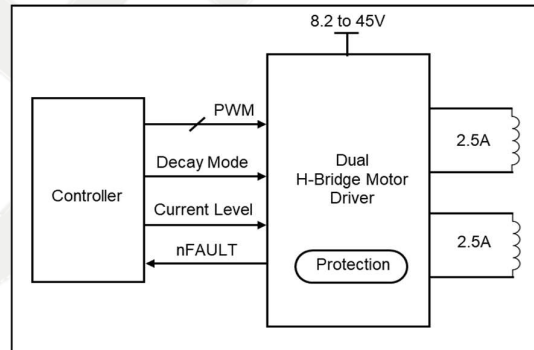


Table 1 Device Summary

Order code	Package	Packing
AXMC18841	HTSSOP28	Tray

Applications

- Printers
- Scanners
- Office Automation Machines
- Gaming Machines
- Factory Automation
- Robotics

