



HL9901, HL9902, HL9903, HL9904

3-phase Intelligent Power Module

Overview

The HL9901 family products of integrated 3-phase half-bridges dramatically simplifies the development and production of high-voltage inverter driven brushless DC motor drives. It incorporates six high-voltage N-channel power MOSFETs with three low and high-side drivers for each phase in a single small-outline package. The internal power MOSFETs offer fast recovery body diodes to minimize EMI and switching losses. The build-in high speed HVIC only requires a single power supply and translates the incoming logic-level gate inputs to the high voltage high current drive signals required to properly drive the internal power MOSFETs.

The HL9901 family ICs also provide multiple on-module protection features including under voltage protection, over current protection, over temperature protection and fault reporting.

Features

- Built-in high-performance power MOSFET
- Integrated bootstrap diodes
- CMOS-compatible input (3.3V or 5V)
- Built-in dead time to avoid cross-conduction
- Under voltage protection for both high side and low side
- Internal over current protection
- Internal over temperature protection
- FO output for fault indication and shutdown function
- Isolation Rating of 1500Vrms/1min

Applications

- Fan motor and pump motor for washer and dryer
- Fan motor for air conditioner, air purifier, and electric fan
- General purpose inverter

Simplified Application Diagram

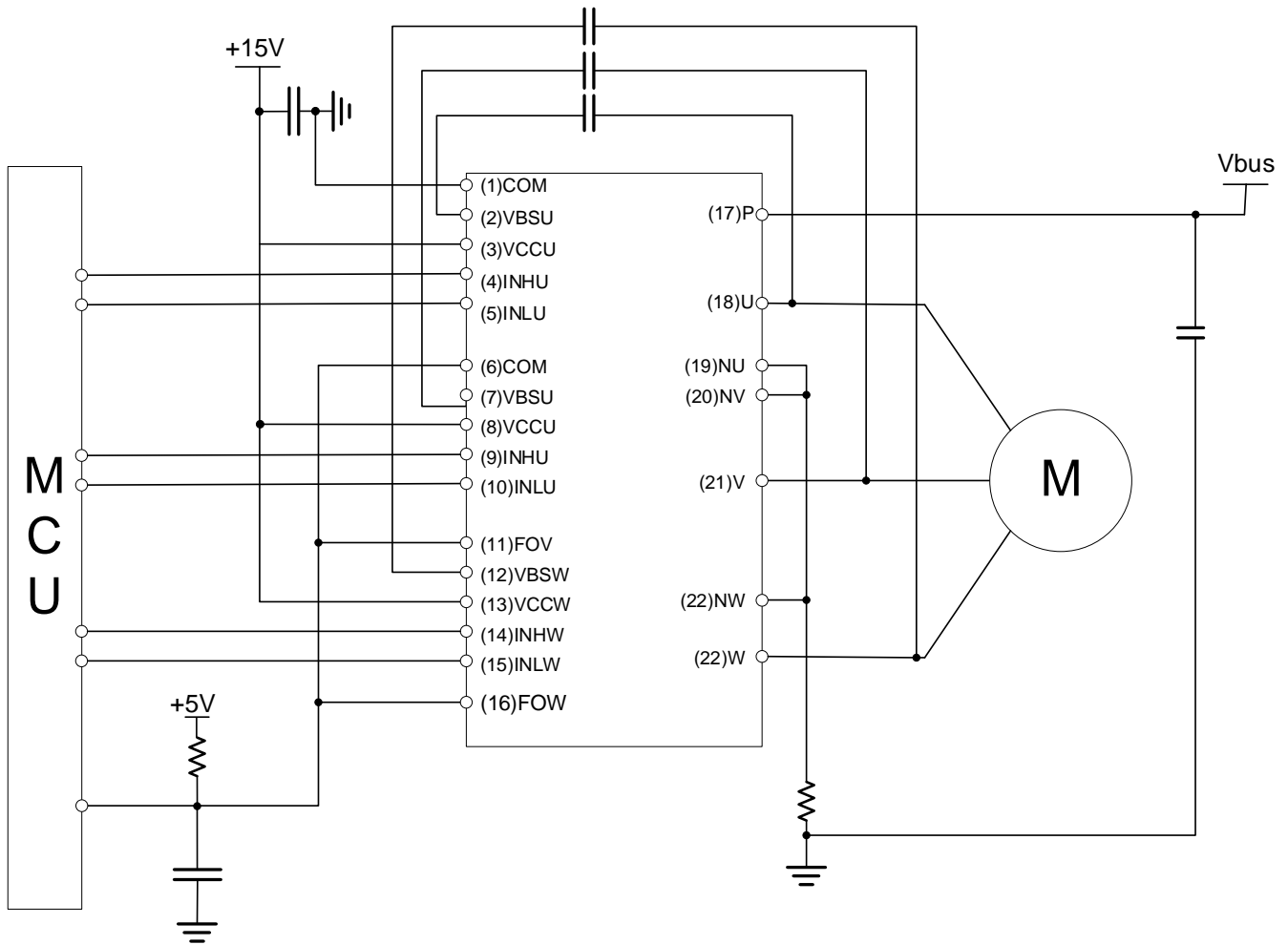


Figure 1. Simplified Application Diagram

Ordering Information

Part Number	MOSFET Supplier	V _{DSS}	I _o	Package	Packing Method
HL9901DP	A company	600V	4A	DIP23	Tube
HL9902DP	A company	500V	5A	DIP23	Tube
HL9903DP	B company	600V	4A	DIP23	Tube
HL9904DP	B company	500V	5A	DIP23	Tube

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