

产品概览

LV8968BBUWR2G: Multi-purpose Three-Phase BLDC Predriver, Developed in Compliance with ISO 26262

欲看完整文档，请参阅数据表。

The LV8968BB is a multi-purpose three-phase BLDC predriver for automotive applications and developed in compliance with ISO 26262. This 3-phase peripheral predriver offers integrated BEMF (Back ElectroMotive Force) sensing and the wide operating voltage range and AEC-Q100 qualification make this device ideal for automotive applications. Six gate drivers provide 400 mA (typ) gate current to external power bridges allowing the use of low-resistance power FETs as well as logic level FETs. All FETs are protected against overcurrent, short-circuit, over-temperature and gate undervoltage. A multitude of protection and monitoring features make this device suitable for applications with functional safety (FuSa) requirements. Three independent low-side source pins allow multiple shunt measurement. The device also includes a programmable linear regulator, a fast current-sense amplifier and a window watchdog for microcontroller support. The SPI interface allows for real time parameter setup and diagnostics. Critical system parameters can be programmed into non-volatile OTP memory. Junction temperature tolerance up to 175°C and control via wide level WAKE and PWM signals make the LV8968BB an ideal motor predriver for a wide range of ISO 26262 related actuators, fans and pumps.

特性

- Full Drive Power from 8 V to 28 V Supply Voltage with Transient Tolerance from 4.5 V to 40 V
 - Extended Voltage Range from 6 V to 33 V Using Logic-level Mode
 - Up to 25 kHz Motor PWM with Individual Six Gate Control or Drive-3 Mode with Integrated Programmable Dead-Time
 - Extensive System Protection Features Including: ♦ Drain-Source Short Detection for External FET ♦ Overcurrent Shutoff ♦ Low Gate Voltage Warning ♦ Over-temperature Warning and Shutoff ♦ Over / Under Voltage Protection
 - Safety Design ASILB
 - Non-Volatile (OTP) Memory for Storing Critical System Parameters
 - 5 V / 3.3 V Linear Regulator for External Loads up to 50 mA
 - SPI Interface for Parameter Setup and Diagnostic Access, Dynamic Access to Dead-Time, Amplifier Gain, and Short Circuit Levels
 - Wide Voltage Enable Line and PWM Interface
 - Integrated Window Watchdog Timer Function
- For more features, see the data sheet

应用

- FuSa (Functional Safety) related actuators
- FuSa related fans
- FuSa related pumps

优势

- compatible with automotive 12V systems and 24V industrial and light e-mobility applications
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- low audible noise, versatile and robust operation
- safe response in any condition
- complete safety package is available
- flexible and safe start-up and fall-back values

终端产品

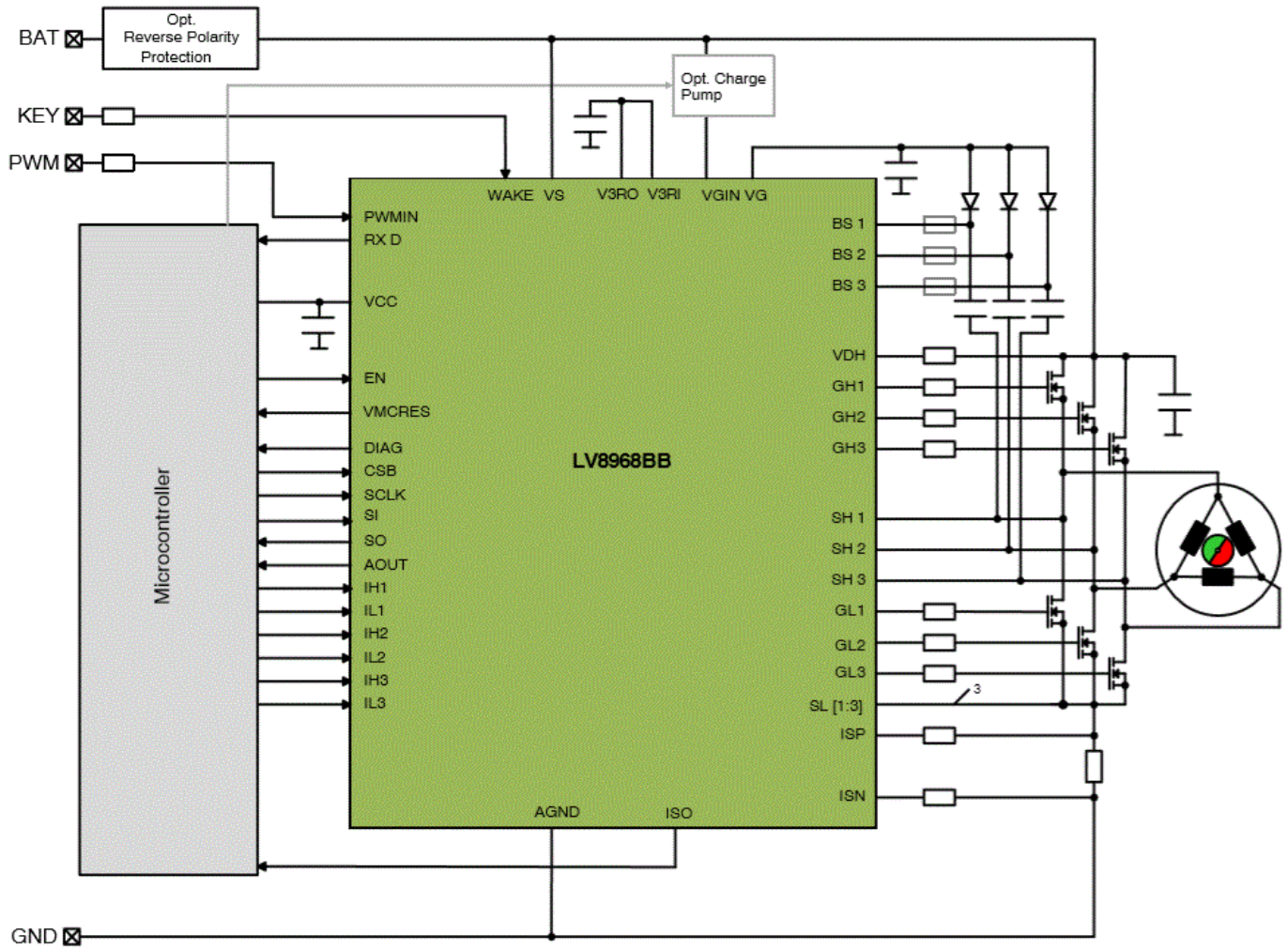
- car: suspension, park brake, transmission, steering pump, vacuum pump, battery pack cooling, sliding door, lift gate, ...
- robot and cobot
- light e-mobility and motive power
- industrial equipment

器件电气规格

产品	Pricing (\$/Unit)	Compliance	Status	Phase	V _{in} (V) Min	V _{in} (V) Max	V _{CC} (V) Min	V _{CC} (V) Max	I _O Max (A)	I _O Peak Max (A)	Control Type	Package Type
LV8968BBUWR2G	5.0159	AEC Qualified PPAP Capable Pb-free Halide free	Active	3	6	33			0.05	0.8	Parallel SPI	SQFP-48K

应用框图

INTERNAL EQUIVALENT BLOCK DIAGRAM AND APPLICATION CIRCUIT



欲了解更多信息，请联系您当地的销售支援 www.onsemi.cn。

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