

L99DZ200G

Dual H-bridge automotive door zone system IC with LIN and HS-CAN



Designed to provide ECUs with enhanced power management functions, the L99DZ200G features two H-bridges for driving two distinct applications

The ever increasing number of functions in the latest generation of car doors led us to integrate two H-bridge drivers within a single classic door zone system IC, making it possible to address two distinct automotive applications with the same device.

The L99DZ200G manages the classic Door Zone for the front door, but with the possibility of controlling the rear window (the so-called Front drives Rear topology); in addition, it can also control most of the typical loads required by the power trunk or tailgate applications.

KEY FEATURES & BENEFITS

- AEC-Q100 qualified
- 2 H-bridge drivers with Generator mode and independent PWM control
- 4 integrated half-bridges with Over Current Recovery and Short Circuit protection
- 10-bit ADC for thermal management and battery monitoring
- 7 High-side drivers
- 2-stage charge pumps
- Electro-chromic control
- Gate driver for heater control
- Contact monitoring
- HS-CAN and LIN transceivers
- Two 5V voltage regulators
- Fail-safe low-side drivers

- Thermal warning and shutdown protection

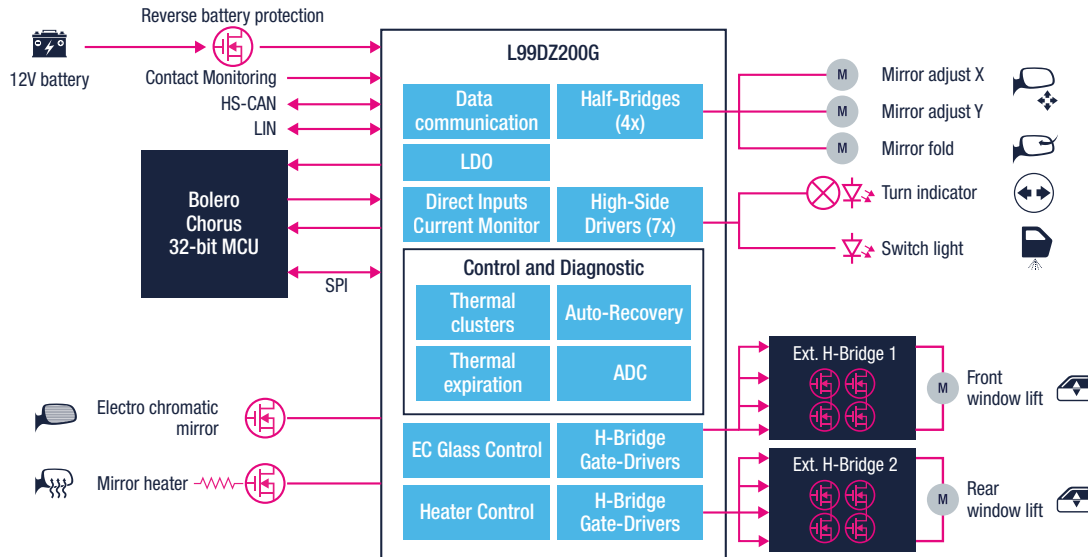
KEY APPLICATIONS

- Door zone module
- Power trunk / tailgate

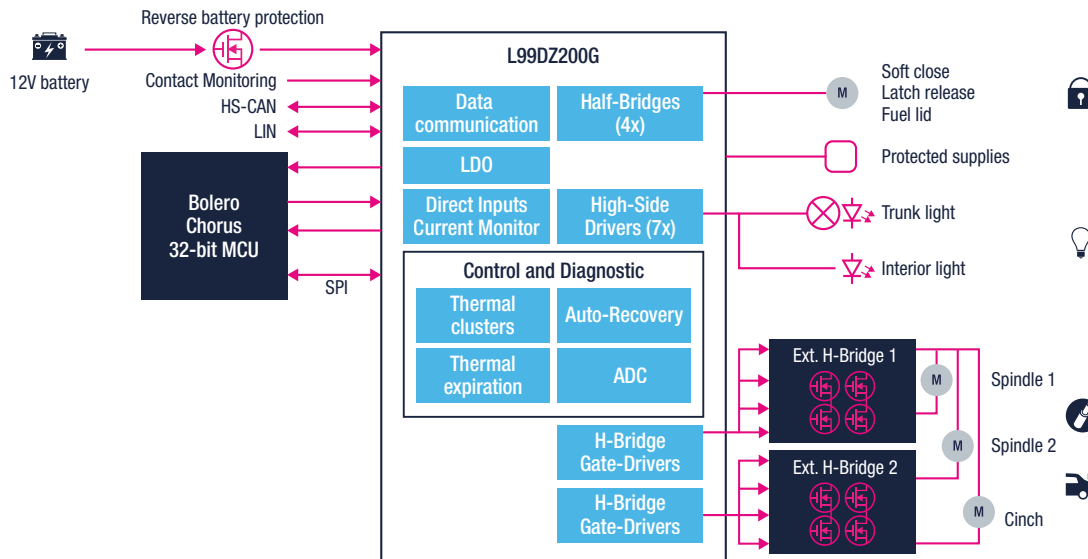
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The L99DZ200G is a door zone system IC integrating LIN and HS CAN transceivers; the integration of 7 high-side drivers allows to supply LEDs and bulbs while 4 half bridges can control up to 3 DC motors; 8 external MOS transistors (4 for each of the 2 H-bridge drivers) can be driven and two low-drop voltage regulators are embedded too. An additional gate drive can control an external MOSFET in high-side configuration to supply a resistive load connected to GND (e.g. mirror heater) and an electro-chromic mirror glass can be controlled too. All the outputs are short-circuit protected and implement open-load diagnostics. The ST standard SPI interface (4.0) allows control and diagnostics of the device and enables generic software development.

L99DZ200G BLOCK DIAGRAM FOR FRONT DRIVES REAR TOPOLOGY



L99DZ200G BLOCK DIAGRAM FOR POWER TRUNK / TAILGATE APPLICATION



Devices Summary

Part Number	Package	Technology	Operative range	Temperature Range
L99DZ200G	LQFP64	BCD8sAuto	6 to 28 V	-40 to 175 °C



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