

L99MH98 OCTAL HALF-BRIDGE



8 half-bridge pre-drivers
for automotive applications



Indirect current measurement on external MOSFETs without using shunt resistors for a lower system complexity and BOM

An efficient 8-channel half-bridge pre-driver designed to control up to sixteen N-channel MOSFETs, the **L99MH98** is ideal for a variety of automotive DC motor applications. Each gate driver independently monitors its external MOSFET drain-source voltage for fault conditions, ensuring reliable operation.

An advanced “3-stage gate current” control optimizes EMI and allows efficient driving of multiple external MOSFETs (up to 120 mA).

The L99MH98 offers superior control and protection for advanced DC motor control including high-level off-state diagnostics available via SPI.

Additionally, it meets the ASIL B requirements according to the ISO 26262 standard, providing reliable safety for automotive applications.

KEY FEATURES & BENEFITS

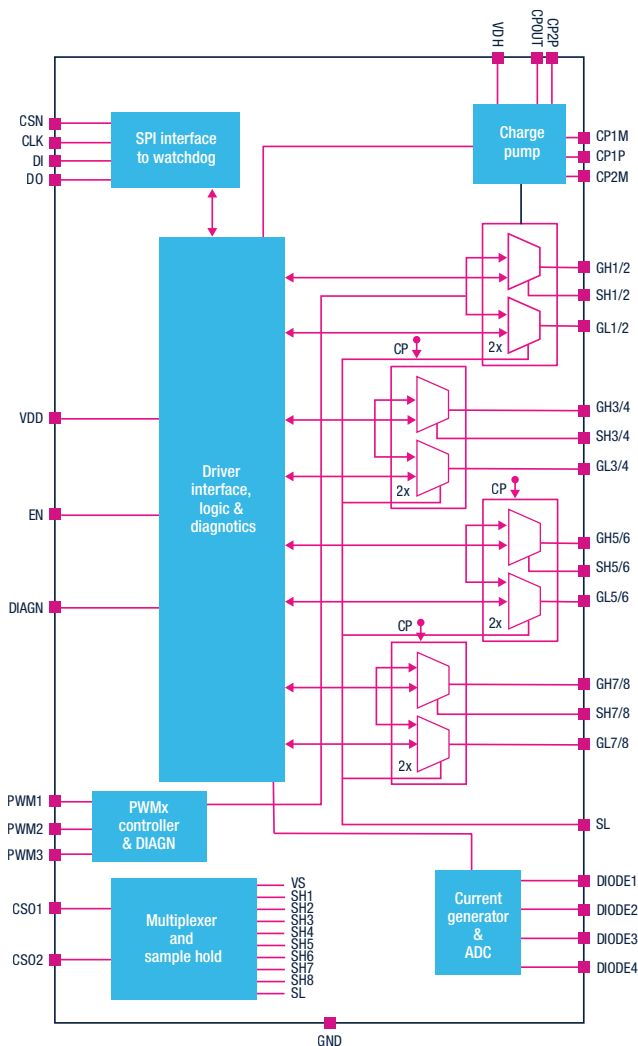
- Power supply operating range up to 28V
- Indirect current measurement of external MOSFETs
- Programmable gate current up to 120 mA
- Four diodes for temperature monitoring
- Three PWM inputs up to 50 kHz
- High-side and low-side PWM capable
- Low current consumption in stand-by mode (max 1.05 μ A)
- Defined to be used in safety-relevant applications (ASIL B)

KEY APPLICATIONS

- Sunroof
- Power trunk lift gate
- Sliding doors
- Window lift
- Seat control modules

The **L99MH98** is designed to drive 16 external NMOS transistors in octal half-bridge, quad H-bridge, or single HS/LS predriver configuration. An indirect current sensing patent feature on external MOSFETs ensures BOM cost savings as the use of shunt resistors is no longer required. It embeds a patented “multi fail-safe mode” feature that passively switches off gate drivers if a fault occurs depending on register settings.

L99MH98 block diagram



Device summary

Part number	Package	Extended operative input voltage (V)	Gate current	Max Quiescent current (uA)	Features
L99MH98-TR VFQFPN-48 Wettable flank		up to 28 V	Programmable gate current up to 120 mA	1.05	Indirect current measurement Three-stage gate current Multi fail-safe mode



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