

MM908E626

Integrated Quad Half H-Bridge with Power Supply, Embedded MCU and LIN Serial Communication

Applications

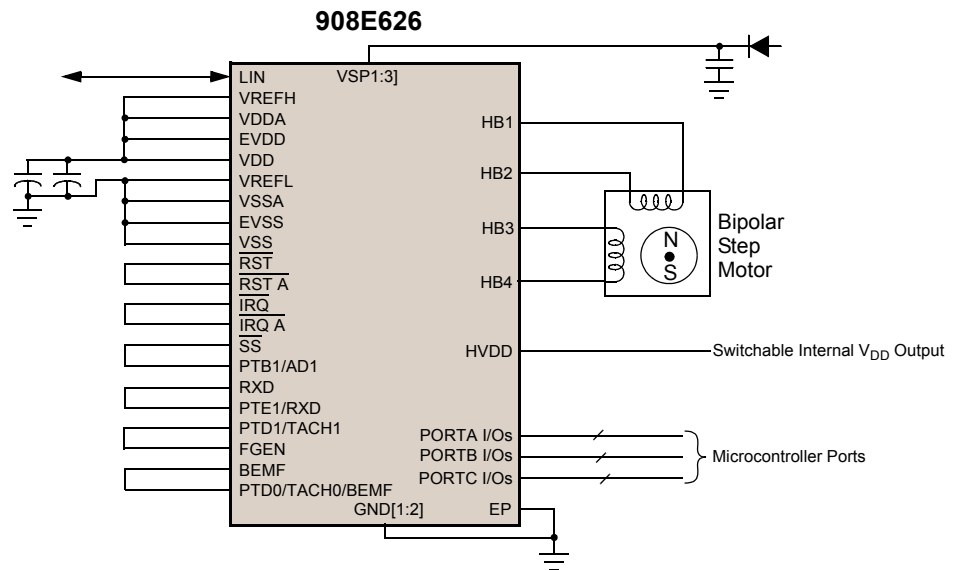
- Automotive Systems
- DC Motor and Actuator Control in Boats, RVs, and Marine Systems
- DC Motor Control in Industrial and Robotic Systems
- Appliance and White Goods Electrical Actuators
- Powered Machine and Hand Tools
- Antenna Rotors and Dish Positioning Systems
- LED and Incandescent Lamps

Overview

The 908E626 is an integrated single package solution, including a high performance HC08 microcontroller with a SMARTMOS analog control IC. The HC08 includes flash memory, a timer, enhanced serial communications interface (ESCI), an analog-to-digital converter (ADC), internal serial peripheral interface (SPI), and an internal clock generator (ICG) module. The analog control die provides fully protected H-Bridge outputs, voltage regulator, autonomous watchdog with cyclic wake-up, and local interconnect network (LIN) physical layer.

The single package solution, together with LIN, provides optimal application performance adjustments and space saving PCB design. It is well-suited for the control of automotive mirror, door lock, and light leveling applications.

MM908E626 Simplified Application Diagram



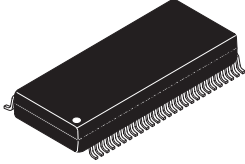

Performance	Typical Values
Outputs	4 HB
$R_{DS(ON)}$ @ 25°C H-Bridge	425 mΩ
Operating Voltage	8.0 to 18 V
Peak Current	5.0 A per HB
ESD, HBM	± 3000 V
Ambient Operating Temperature	-40 °C ≤ T _A ≤ 115 °C
Junction Operating Temperature	-40 °C ≤ T _J ≤ 135 °C

Features

- High-performance M68HC908EY16 core
- 16 KB of on-chip flash memory
- 512 B of RAM
- Internal clock generation module
- Two 16-bit, two-channel timers
- 10-bit analog-to-digital converter
- Four low $R_{DS(ON)}$ half-bridge outputs
- 13 microcontroller I/Os
- Additional devices available for comparison in the Analog Product Selector Guide SG1002 and Automotive Product Selector Guide SG187

Customer Benefits

- Integrate microcontroller and analog features in the same package solution
- Provide a full LIN node solution
- Reduced space resulting in enhanced reliability
- Internal protection features provide full protection for output stages (with status reporting)
- Economical and autonomous multi-function solution with few external components
- Easy control of DC as well as stepper motor

Ordering Information			54 SOICW-EP
Device	Temperature Range	Package	
MM908E626AVPEK/R2	-40 to 115 °C	54 SOICW-EP	
Evaluation Board			EK SUFFIX (PB-FREE) 98ARL10519D
KIT908E625DWBEVB	Evaluation Board. Contact sales for kit availability.		
Documentation			
MM908E626	Data sheet order number		
SG1002	Analog Product Selector Guide		
SG 187	Automotive Product Selector Guide		

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