



Analog and Mixed-Signal Fact Sheet

MC33926

5 A throttle control H-Bridge power integrated circuit

Applications

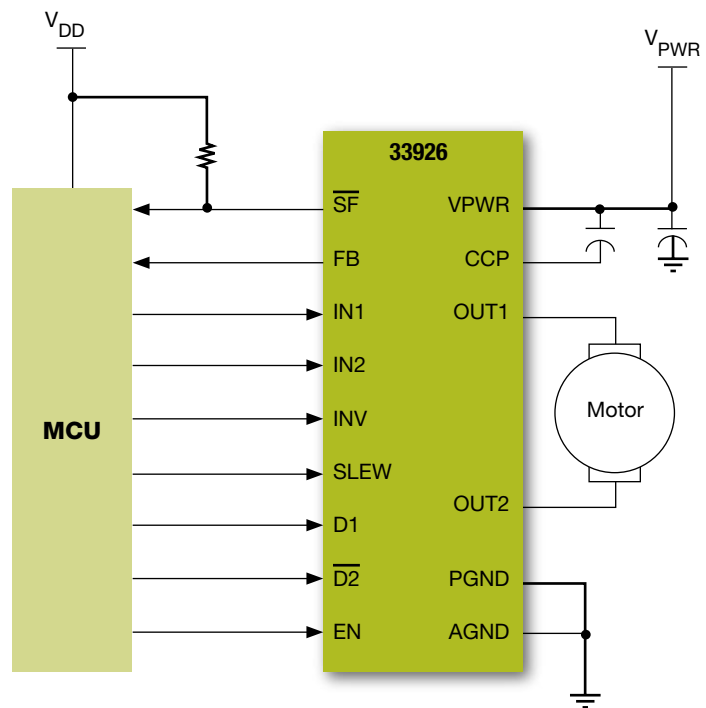
- Electronic throttle control
- DC motor control
- Industrial motors and actuators

Overview

The MC33926 is a monolithic H-Bridge power IC designed primarily for automotive electronic throttle control, but is also applicable to many low-voltage DC servo motor control applications. It is particularly well suited for the harsh environment found in automotive powertrain systems. Within the vehicle, the MC33926 is designed to drive DC motor or bi-directional solenoid controlled actuators such as throttle control or exhaust gas recirculation actuators.

The MC33926 provides a robust solution for a tough environment in a very compact and easy to use package. The simple inputs allow precise control of the load and do not give up when the going gets tough. The very compact PQFN package is thermally enhanced to provide superior performance making this an ideal solution for space oriented applications.

MC33926 Simplified Application Drawing



Features

- H-Bridge configuration for bi-directional motors
- 225 mΩ maximum $R_{DS(ON)}$ @ 150°C (for each H-Bridge MOSFET)
- Over current limiting (regulation) via internal constant-off-time PWM
- Output short circuit protection (short to V_{PWR} or ground)
- Temperature dependent current limit threshold reduction
- 3 and 5V TTL/CMOS logic compatible inputs
- Current feedback
- Sleep mode current < 50 μ A

Benefits

- Robust solution for harsh environments
- Compact, easy to use package
- Protected against common failure conditions

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Orderable Part

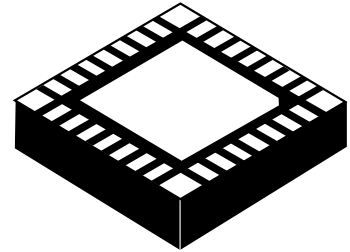
Part Number	Temp. Ranges (T_A)	Package
MC33926PNB/R2	-40°C to +125°C	32 PQFN

Parametric Table

Performance	Typical Values
H-Bridge outputs	2
Outputs $R_{DS(ON)}$	120 mΩ
PWM	20 KHz
ESD	2 KV
Control/communication	Parallel
Operating Voltage	8–28V

Documentation

Document Number	Title	Description
MC33926	Data Sheet	Presents the specifications for this product
SG1002	Selector Guide	Analog and Power Management Device Comparison
SG187	Selector Guide	Automotive device comparison
AN2467	Application Note	Power Quad Flat No-Lead (PQFN) Package



PNB SUFFIX
(Pb-FREE)
98ARL10579D
32-pin PQFN
(bottom view)

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