



Product Overview

MC33039: Motor Driver, Closed Loop, Brushless

For complete documentation, see the [data sheet](#)

Product Description

The MC33039 is a high performance closed-loop speed control adapter specifically designed for use in brushless DC motor control systems. Implementation will allow precise speed regulation without the need for a magnetic or optical tachometer. This device contains three input buffers each with hysteresis for noise immunity, three digital edge detectors, a programmable monostable, and an internal shunt regulator. Also included is an inverter output for use in systems that require conversion of sensor phasing. Although this device is primarily intended for use with the MC33035 brushless motor controller, it can be used cost effectively in many other closed-loop speed control applications.

Features

- Digital Detection of Each Input Transition for Improved Low Speed Motor Operation
- TTL Compatible Inputs With Hysteresis
- Operation Down to 5.5 V for Direct Powering from MC33035 Reference
- Internal Shunt Regulator Allows Operation from a Non-Regulated Voltage Source
- Inverter Output for Easy Conversion between 60°/300° and 120°/240° Sensor Phasing Conventions
- Pb-Free Packages are Available

Part Electrical Specifications

Product	Compliance	Status	Type	V _M Min (V)	V _M Max (V)	V _{CC} Min (V)	V _{CC} Max (V)	I _O Max (A)	I _O Peak Max (A)	Step Reso- lution	Control Type	Feed- back Method	Current Sense	Regu- lator Output	Fault Detection	Flyback Protection	R _{DS(on)} Typ (Ω)	Package Type
MC33039DR2G	Pb-free Halide free	Active	Brushless DC	5.5	7.5	5.5	9	0.02	0.02				None	No				SOIC-8

For more information please contact your local sales support at www.onsemi.com

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