

**ANALOG
PRODUCTS**

**MC34923
FACT SHEET**



**POWER ICs
H-BRIDGE**

MC34923 0.6 Ω (TYP) H-BRIDGE MOTOR DRIVER

APPLICATIONS

- Printers
- Scanners

The MC34923 is designed for pulse-width modulated (PWM) current control of dc motors, capable of driving a DC-motor at 2.0 A with PWM control, the maximum motor voltage is 45 V and slow, fast, mixed current increase decrease modes are supported.

PHASE and ENABLE input terminals are provided for use in controlling the direction and speed of a DC-motor with externally applied PWM-control signals. To PWM the bridge in fast or slow current decay, the ENABLE input can be programmed via the serial port.

Integrated synchronous rectification control circuitry is provided to reduce power dissipation during PWM operation. Internal circuit protection includes thermal shutdown with hysteresis, and crossover-current protection. Unique power-up sequencing is not required.

FEATURES

- Low $R_{DS(on)}$ 0.6 Ω (typ)
- Output current 2.0 A (DC), 8.0 A (Peak)
- Shoot through current protection circuit
- Serial interface control
- Motor maximum voltage: 45 V
- Additional devices available for comparison in Analog Selector Guide SG1002/D

Performance	Typical Values
Outputs	1 ch
Output Current	2.0 A DC, 8.0 A (Peak)
Motor Operating Voltage	20 – 45 V
Logic Operating Voltage	2.9 – 5.5 V
Operating Temp	-20°C ≤ T _A ≤ 85°C

QUESTIONS

- Are you looking for a simple, easy-to-design power supply solution for your embedded system?
- Do you need to reduce system costs or have limited PC board space?
- Are you working with portable electronic battery powered applications?
- Do you need to control a multiple DC-motors in a 3 or 5 V system?
- Are you designing a Brush DC-motor controller for motors up to 8.0 A (peak) and 45 V DC?

Protection	Detect	Shut Down	Limiting
Under Voltage	•	•	
Over Current	•	•	•
Over Temperature	•	•	
Reverse Battery	•	•	

Ordering Information	Package	Ship Method	Motorola Part Number
	24 SOICW	Rail	MC34923DW
		Reel	MC34923DWR2



MOTOROLA and the Stylized M Logo are registered in the U.S. Patent & Trademark Office. All other product or service names are the property of their respective owners.
© Motorola, Inc. 2002

MC34923FS/D
Rev. 0