

**ANALOG  
PRODUCTS**

**MPC17511  
FACT SHEET**



**POWER ICs  
H-BRIDGE**

**MPC17511 0.46 Ω (TYP) H-BRIDGE MOTOR DRIVER IC**

**APPLICATIONS**

- Portable Electronics
- Single Lens Camera
- Optical Disc Drive (MO, DVD, CD, etc.)

The MPC17511 is a monolithic H-Bridge that is ideal in portable electronic applications to control various micro DC-motors such as Single Lense Cameras and Optical Disc Drives (MO, DVD, CD etc).

MPC17511 is 2.0 – 6.8 V H-bridge motor driver with enable and tri-state bridge control and an additional output for controlling an external MOSFET via a parallel MCU interface (3 and 5 V compatible logic). The IC can drive various types of micro motors with low loss via parallel drive because each section has very efficient drivers designed for PWM Control frequency up to 200 kHz for high speed drive and independent input/output circuitry.

The MPC17511 has Low ON-Resistance of 0.6 Ω (max). The devices contains an integrated charge pump and level shifter for gate drive voltages, with an integrated shoot through current protection circuit and undervoltage circuit detector to avoid malfunction. This IC has 4 output control modes: Forward, Reverse, Brake, Tri-state (Open).

**FEATURES**

- Low  $R_{DS(on)}$  0.46 Ω (typ)
- Output current 1 A (DC), 3 A (Peak)
- Shoot through current protection circuit
- PWM control input frequency 200 kHz
- External MOSFET control circuit
- Charge pump circuit
- Additional devices available for comparison in Analog Selector Guide SG1002/D

**Performance**

**Typical Values**

Outputs	1 ch
Output Current	1 A (DC), 3 A (Peak)
Motor Operating Voltage	2.0 – 6.8 V
Logic Operating Voltage	2.7 – 5.7 V
Input PWM	200 kHz
Operating Temp	-20°C ≤ T <sub>A</sub> ≤ 65°C

**QUESTIONS**

- Are you working with portable electronic battery powered applications?
- Do you need to control a micro Brush DC-motor in a 3 or 5 V logic systems?
- Are you designing a Brush DC-motor controller for motors up to 3 A (peak) and 6.8 V DC?
- Do you need to drive a motor both forward and reverse?

Protection	Detect	Shut Down
Under Voltage	•	•

**Ordering Information**



Package	Ship Method	Motorola Part Number
16 VMFP	Rail	MPC17511SVM



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