ANALOG PRODUCTS

MPC17533 FACT SHEET

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POWER ICs
H-BRIDGE



## MPC17533 0.7 Ω (TYP) DUAL H-BRIDGE MOTOR DRIVER

The MPC17533 is a monolithic Dual H-Bridge IC that is ideal in portable electronic applications for controlling stepper or Brush DC-motors for example, Camera Lens Shutters and Optical Disk drives.

MPC17533 is 2.0 – 6.8 V dual H-bridge motor driver with enable and tri-state bridge control via a parallel MCU interface (3 and 5 V compatible logic). The IC has built-in shoot through current protection and undervoltage detector to avoid malfunction. This IC has 4 output control modes: Forward, Reverse, Brake, Tri-state (Open) and low ON-Resistance of 1.2 Ω (max).

This MPC17533 can drive various type of micro motor with low loss via parallel drive because each section has very efficient drivers for PWM Control frequency up to 200 kHz for high speed drive and independent input/output circuitry.

### APPLICATIONS

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

### FEATURES

- Low $R_{DS(ON)}$ 0.7 Ω (typ)
- Output current 700 mA (DC), 1.4 A (Peak)
- Shoot through current protection circuit
- PWM control input frequency 200 kHz
- Need to external VG
- Additional devices available for comparison in Analog Selector Guide SG1002/D

| Performance | Typical Values |
|---|---|
| Outputs | 2 ch |
| Output Current | 0.7 A (DC), 1.4 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 ≤ $T_A$ ≤ 65°C |

| Protection | Detect | Shut Down |
|---|---|---|
| Under Voltage | • | • |

### QUESTIONS

- Are you working with portable electronic battery powered applications?
- Do you need to control a stepper or Brush DC-motor in a 3 or 5 V logic system?
- Are you designing a Brush DC-motor controller for motors up to 1.4 A (peak) and 6.8 V DC?

| Ordering Information | Package | Ship Method | Motorola Part Number |
|---|---|---|---|
|  | 16 VMFP | Rail | MPC17533SVM |

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MPC17533FS/D
Rev. 0