

MPC17529

Dual H-Bridge

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DESCRIPTION

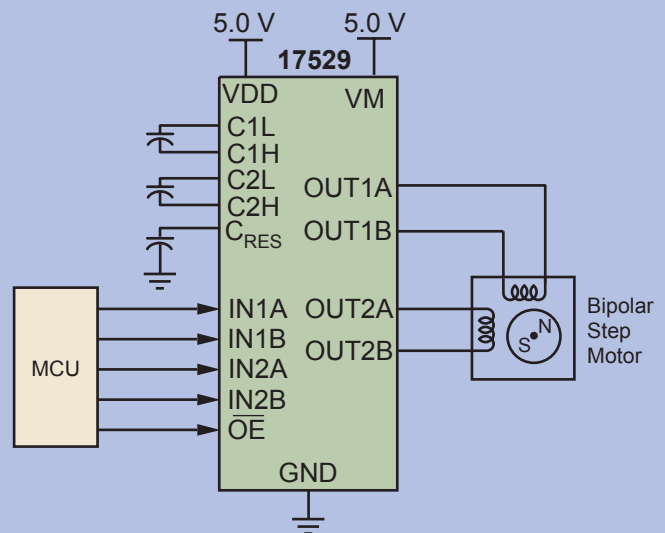
The 17529 is a monolithic dual H-Bridge power IC ideal for portable electronic applications containing bipolar step motors and/or brush DC-motors (e.g., cameras and disk drive head positioners).

The 17529 operates from 2.0 V to 6.8 V, with independent control of each H-Bridge via parallel MCU interface (3.0 V- and 5.0 V-compatible logic). The device features on-board charge pump, as well as built-in shoot-through current protection and an undervoltage shutdown function.

The 17529 has four operating modes: Forward, Reverse, Brake, and Tri-States (High Impedance). The 17529 has a low total RDS(ON) of 1.2 Ω (max @ 25°C).

The 17529's low output resistance and high slew rates provide efficient drive for many types of micromotors.

17529 SIMPLIFIED APPLICATION DIAGRAM



APPLICATIONS

- Portable Electronics
- SLR Lens Shutter Control
- Optical Disc Drive (MO, DVD, and CD)
- DSC, DVC

PERFORMANCE

TYPICAL VALUES

Outputs	2 ch
Output Current	0.7 A (DC), 1.4 A (Peak)
Motor Operating Voltage	2.0 V - 6.8 V
Logic Operating Voltage	2.7 V - 5.7 V
Inpt PWM	200 kHz
Operating Temperature	-20°C ≤ T _A ≤ 65°C

FEATURES

- Motor power supply 6.8 V operation
- Low RDS(ON) 0.7 W (typ)
- Output current 700 mA (DC), 1.4 A (peak)
- Shoot through current protection circuit
- PWM control input frequency 200 kHz
- Charge pump circuit
- Additional devices available for comparison in Analog Selector Guide SG1002

PROTECTION	DETECT	LIMITING	SHUT DOWN
Undervoltage	●		●
Overcurrent/Short Circuit		●	

CUSTOMER BENEFITS

- Easy MCU interfacing to dual H-Bridges
- Dual H-Bridges can be used singly or in parallel
- Undervoltage detection to prevent erratic operation
- Low RDS(ON) bridge maximizes current to a load
- Output protection H-Bridge operation to 6.8 V @ 1.4 A peak PWM to 200 kHz
- Integral charge pump for a simpler system
- Low quiescent current
- Low profile package for portable designs
- Reduced design time

QUESTIONS

- Are you working with portable electronic battery powered applications?
- Do you need to control a bipolar stepper or brush DC-motor in a 3.0 V or 5.0 V logic system?
- Are you designing a motion control system using motors up to 1.4 A (peak) and 6.8 V DC?

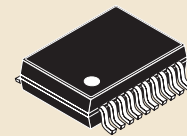
ORDERING INFORMATION

Device	Temperature Range (T _A)	Package
**17529EV/EL	-20°C to 65°C	20 VMFP

Data sheet Order Number MPC17529

**Prefix Index:
PC = Engineering Samples; MC = Production

Contact Sales for Evaluation Kit Availability



20 VMFP
0.65 mm Pitch
7.2 mm x 5.3 mm Body