MP6619

5.4V to 28V, 5A, H-Bridge Motor Driver

DESCRIPTION

The MP6619 is an H-bridge motor driver that operates from a supply voltage up to 28V and delivers a motor current up to 5A. The MP6619 is ideally suited to drive a brushed DC motor.

The MP6619 also has cycle-by-cycle current limiting.

Full protection features include over-current protection (OCP), input over-voltage protection (OVP), under-voltage lockout (UVLO), and thermal shutdown.

The MP6619 is available in a QFN-19 (3mmx3mm) package.

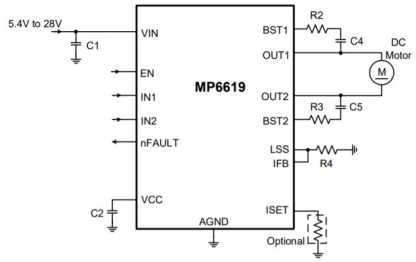
FEATURES

- Wide 5.4V to 28V Operating Input Range
- Up to 5A Peak Output Current
- Internal H-Bridge Driver
- Cycle-by-Cycle Current Limiting
- 65mΩ $R_{DS(ON)}$ for Each Half-Bridge MOSFET
- 100% Duty Cycle Operation of H-Bridge
- 1μA Shutdown Mode
- Output Short-Circuit Protection (SCP)
- Input Over-Voltage Protection (OVP)
- Under-Voltage Lockout (UVLO)
- Over-Temperature Shutdown
- Fault Indication Output
- Available in a QFN-19 (3mmx3mm) Package

APPLICATIONS

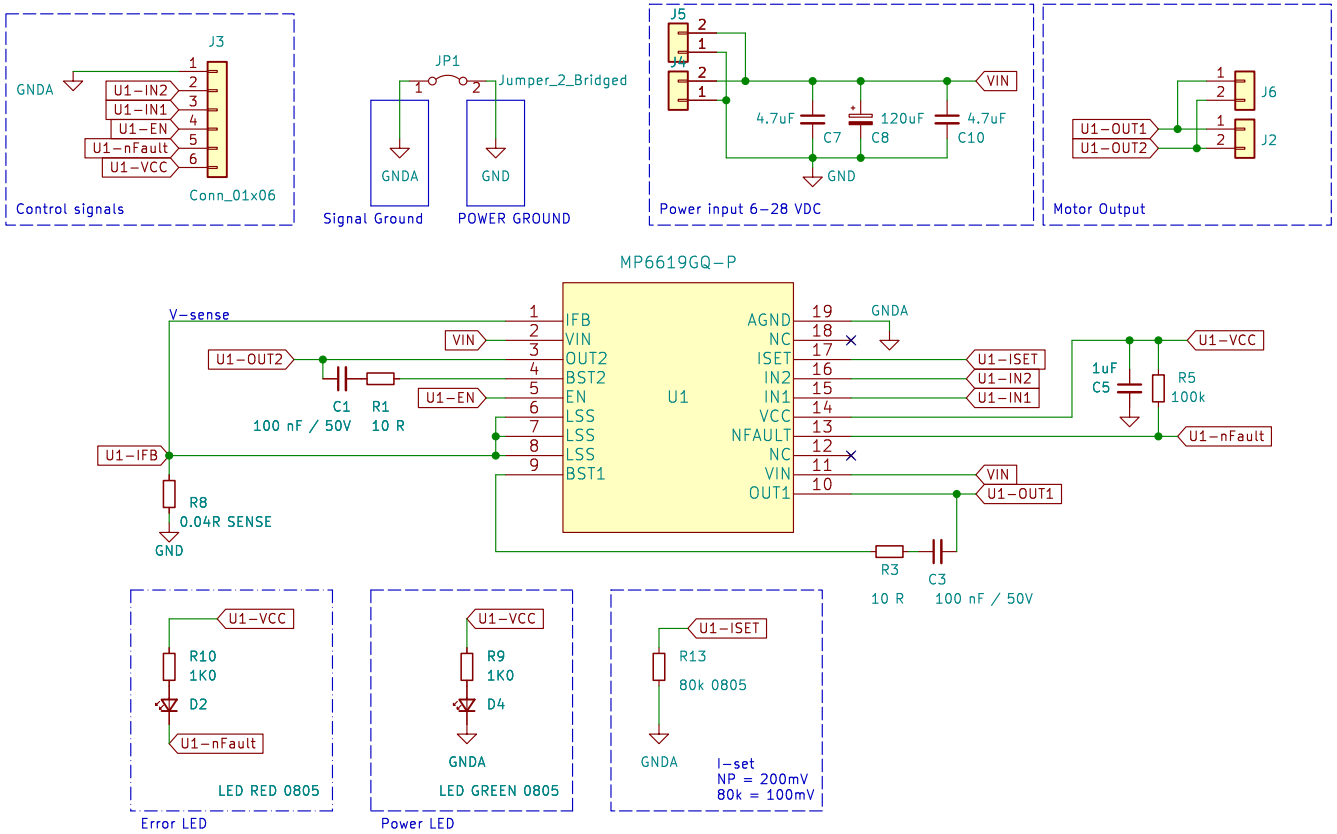
- DC Motors
- Solenoid/Actuators

TYPICAL APPLICATION



PIN FUNCTIONS

Pin #	Name	Description
1	IFB	**Current-sense signal feedback.** Connect the IFB and LSS pins together.
2, 11	VIN	**Input supply.**
3	OUT2	**Output terminal 2.**
4	BST2	**Bootstrap pin for the OUT2 high-side MOSFET (HS-FET) gate driver.** Connect a capacitor between the BST2 and OUT2 pins.
5	EN	**IC enable.**
6, 7, 8	LSS	**Low-side source connection.** For current sense, connect a current-sense resistor between the LSS pin and power ground.
9	BST1	**Bootstrap pin for the OUT1 HS-FET gate driver.** Connect a capacitor between BST1 and OUT1.
10	OUT1	**Output terminal 1.**
12, 18	NC	**No connection.** Float this pin or connect it to AGND.
13	nFAULT	**Fault indication output.** nFAULT is active low for fault conditions.
14	VCC	**5V LDO output for internal driver and logic.**
15	IN1	**Output 1 control input.** IN1 is pulled down internally.
16	IN2	**Output 2 control input.** IN2 is pulled down internally.
17	ISET	**Current trip voltage setting.** Connect a resistor to GND from the ISET pin.
19	AGND	**Ground for internal logic.**



Edwin van den Oetelaar

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Title: ELEKTOR MP6619 BREAKOUT (BOB)

Size: A4	Date: 2023-05-14	**Rev: 2**
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