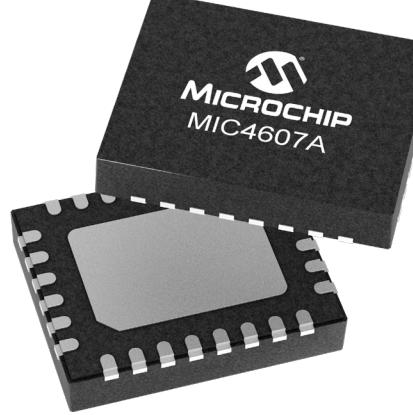


ANALOG SPOTLIGHT

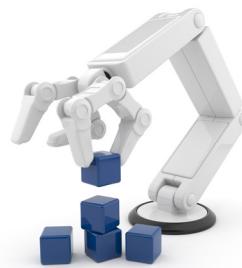
MIC4607A

85V, Three-Phase MOSFET Driver



General Information

Our MIC4607A is an 85V, three-phase MOSFET driver. It features a fast (35 ns) propagation delay time and a 20 ns driver rise/fall time for a 1 nF capacitive load. TTL inputs can be separate, high- and low-side signals or a single Pulse-Width Modulation (PWM) input with high and low drive generated internally. High- and low-side outputs do not overlap in either mode. The MIC4607A is available in a 28-pin, 4 mm × 5 mm VQFN package with wettable flanks in Moisture Sensitivity Level 1.



Features

- Gate drive supply voltage up to 16V
- Enhanced overcurrent protection with add blanking time
- Drives high-side and low-side N-channel MOSFETs with independent inputs or with a single PWM signal
- TTL input thresholds
- On-chip bootstrap diodes
- Fast 35 ns propagation times
- Shoot-through protection
- Drives 1000 pF load with 20 ns rise and fall times
- Low power consumption
- Supply undervoltage protection
- Junction temperature range of -40°C to $+125^{\circ}\text{C}$
- Qualified according to AEC-Q100 and AEC-Q006
- Applications
- Electric vehicle
- Consumer electronics
- Industrial automation
- Robotics

Benefits

- Overcurrent protection with blanking time insertion
- Undervoltage protection on the low-side and high-side drivers

Evaluation Board

Part Number: EV42B57A



The MIC4607A MOSFET Driver Evaluation Board is a MOSFET controller for driving Brushless DC (BLDC) motors. The input voltage range for the MOSFET bridge is -0.3V to $+85\text{V}$ and the input voltage range for MIC4607A is 5.25V to 16V . It is a versatile, two-layered, low-cost, high-current and easily configurable board. Several key test points are available on the board in order to facilitate the user's measurements, tuning and motor control optimization.

microchip.com/en-us/product/mic4607a

