



MIC4604

85V Half-Bridge MOSFET Driver with up to 16V Programmable Gate Drive

Benefits

Longer Run Time

Robust Design

Save BOM Cost

Save Board Space

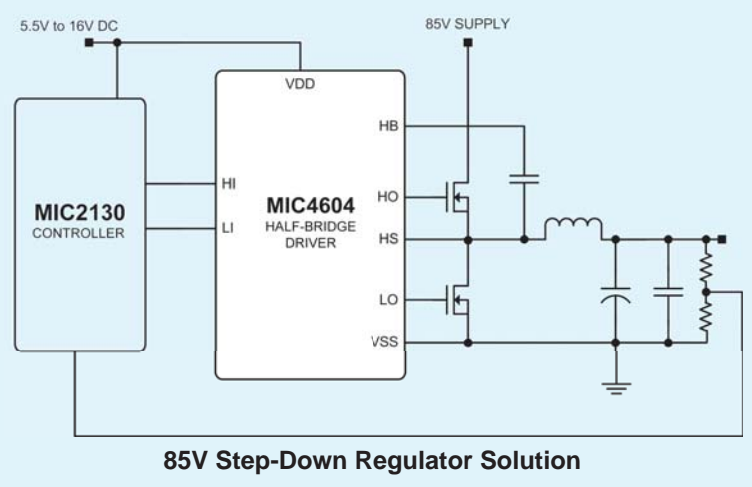
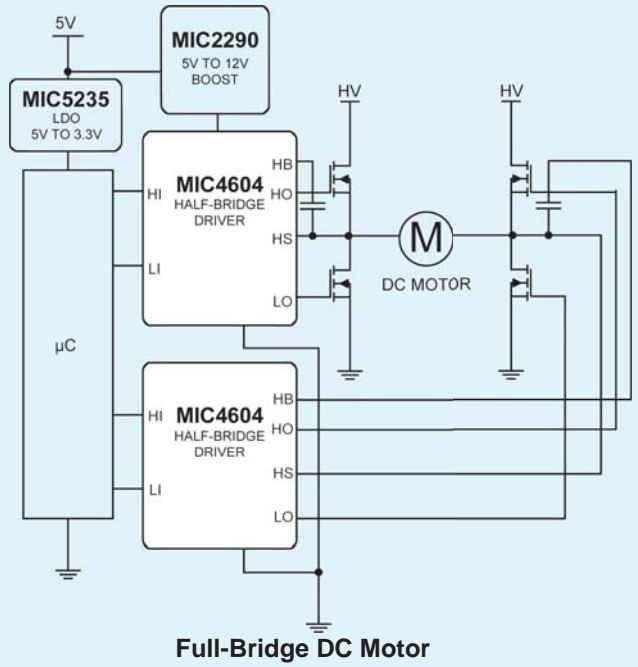
Features

- Wide gate drive range: 5.5V to 16V
- Low 4.9V under voltage lockout allows for longer run time
- 85V operation protects against voltage spikes caused by the motor's back electromagnetic force (EMF)
- Integrated 85V bootstrap diode
- 2.5mm x 2.5mm DFN package
- 8-pin SOIC also available with industry standard pinout

Applications

- Battery-operated power tools
- Inverters
- Full- and half-bridge motor drives
- Synchronous power supplies

Typical Application Circuits

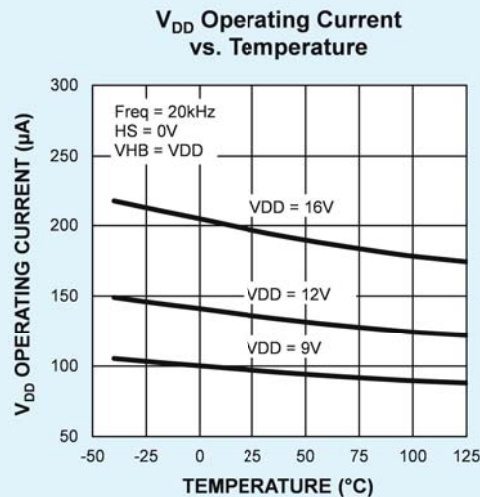
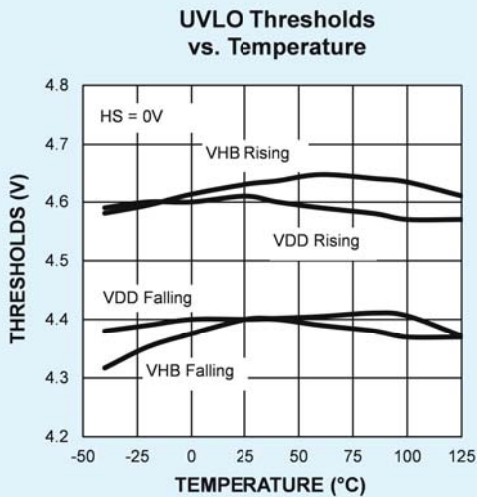
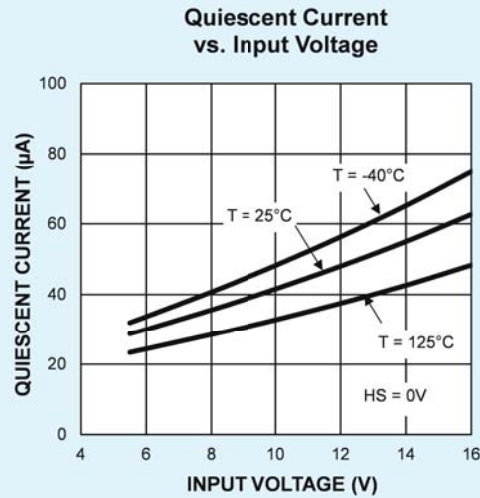
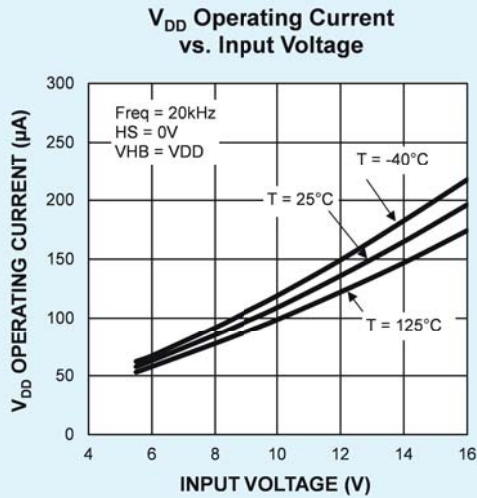


Description

The MIC4604 is an 85V Half Bridge MOSFET driver with integrated bootstrap diode. The MIC4604 features programmable gate drive, gate-to-source voltage equals the V_{DD} voltage. This feature offers designers the flexibility to drive MOSFETs to the desired $R_{DS_{ON}}$ performance. Typically, MOSFETs are driven at 12V to achieve low $R_{DS_{ON}}$.

For battery-powered applications, the MIC4604 offers the ability to drive MOSFETs as low as 5.5V which allows for longer battery run time compared to the traditional MOSFET drivers. This makes the MIC4604 an ideal solution for power tools and battery-powered motor applications.

Performance Characteristics



Ordering Information

Part	Input	Junction Temp. Range	Package
MIC4604YMT	TTL	-40°C to +125°C	10-Pin 2.5mm x 2.5mm TDFN
MIC4604YM	TTL	-40°C to +125°C	8-Pin SOIC



About Micrel

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