

LTC1177-5/LTC1177-12 Isolated MOSFET Drivers

FEATURES

- **UL Recognized** **File E151738 to UL1577**
- **No Secondary Power Supply**
- **Drives Any Logic Level FET**
- LTC1177-5 Operates from 5V
- LTC1177-12 Operates from 12V
- Low Input Current: 2.5mA (typ)
- Turns On in 2.5ms and Turns Off in 1ms
- 2500 V_{RMS} of Isolation Voltage
- Isolates Output from High Voltage Transient
- Clean, Bounce-Free Switching
- Current Limit
- Small Outline Package

APPLICATIONS

- Solid State Relay
- Isolated Solenoid Driver
- Isolated Motor Driver
- Isolated Lamp Driver

DESCRIPTION

The LTC[®]1177 is an isolated high-side MOSFET driver. When used with external N-channel MOSFET, the LTC1177 forms an isolated solid state switch for reliable bounce-free switching operation. The output does not require an auxiliary power supply to maintain an on-state condition.

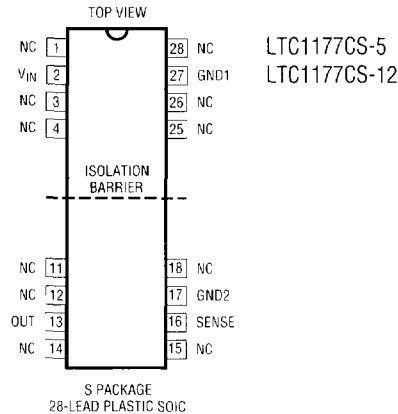
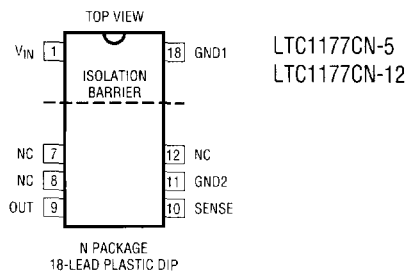
The LTC1177-5 operates from 5V; the LTC1177-12 operates from 12V.

Two-lead frame capacitors are used to transfer energy from the input to drive the gate of the MOSFET and provide the necessary isolation. Unlike the opto-isolated FET driver, the input current for the LTC1177 is only 2.5mA. It also does not have the aging problems endemic to optocouplers.

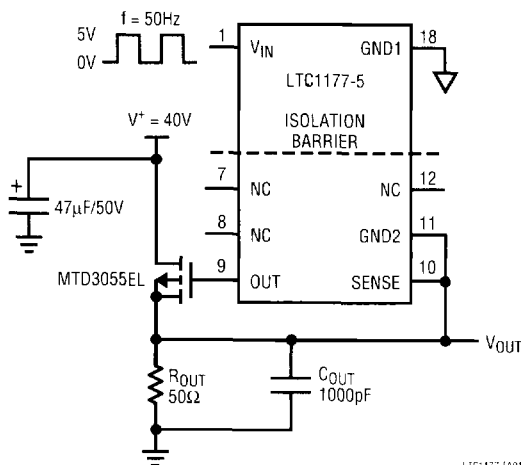
The LTC1177 provides 2500 V_{RMS} (1 minute) or 3000 V_{RMS} (1 second) of input-to-output isolation.

The LTC1177 is available in the 28-pin SOIC or 18 pin DIP.

LTC and LT are registered trademarks of Linear Technology Corporation.



Isolated High-Side Switch



Response Time

