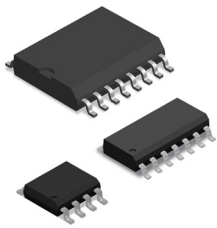


# Integrated Circuits

## IGBT & MOSFET Gate Drivers

Choose from our comprehensive portfolio of Gate Driver ICs to efficiently drive MOSFETs and IGBTs

### High-Side & Low-Side



#### Features:

- High-side operation up to 600 V<sub>DC</sub>
- 600 mA / 290 mA to 4.5 A / 4.5 A sink/source output capability
- Supply voltage: 10 V to 20 V
- Logic input voltage: 3.3 V to 20 V
- Under Voltage Lockout (UVLO)
- Operating temperature: -40 °C to +125 °C

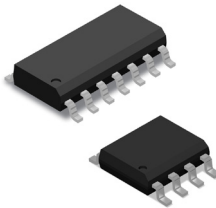
#### Application Examples:

- Motor controls
  - Servo motor control
  - Pumps and fans
- Class-D power amplifiers
- Uninterruptible Power Supply (UPS)
- Welding
- Induction cooking



Motor Control

### Half-Bridge



#### Features:

- High-side operation up to 600 V<sub>DC</sub>
- 600 mA / 290 mA to 2.3 A / 1.9 A sink / source output capability
- Supply voltage: 10 V to 20 V
- Logic input voltage: 3.3 V to 20 V
- Fixed or programmable deadtime
- Under Voltage Lockout (UVLO)
- Operating temperature: -40 °C to +125 °C

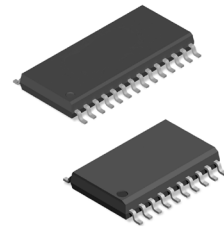
#### Application Examples:

- Motor controls / drives
- Stepper motor drives
- DC / DC-converters
- AC / DC-inverters
- Robotics
- Cordless power tools
- Drones



Welding Equipment

### 3-Phase Half-Bridge



#### Features:

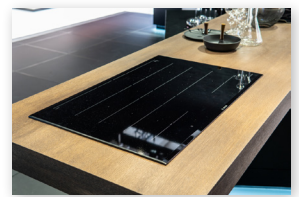
- High-side operation up to 600 V<sub>DC</sub>
- 350 mA / 200 mA and 600 mA / 290 mA sink/source output capability
- Supply voltage range: 10 V to 20 V
- Logic input voltage range: 3.3 V to 20 V
- Fixed internal deadtime
- Cross conduction prevention logic
- Shoot-through protection logic
- Operating temperature: -40 °C to +125 °C

#### Application Examples:

- Three-phase motor drives
- White goods
  - Pump motors
  - Compressor motors
  - Fan motors
- Air conditioners
- Cordless power tools
- Robotics



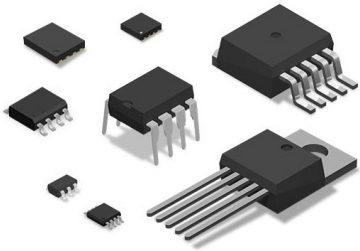
Uninterruptible Power Supply



Induction Cooktop

# Gate Driver ICs

## Low-side



### Features:

- 1.5 A to 30 A peak source/sink drive current
- Wide operating voltage range up to 35 V
- Operating temperature:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Logic input withstands negative swing up to  $-5\text{ V}$
- Dual drivers have matched rise and fall times
- Low propagation delay time
- Low output impedance
- AEC-Q100 qualified versions available

### Application Examples:

- Efficient power MOSFET and IGBT switching
- Switch mode power supplies
- Motor controls
- DC to DC converters
- Class-D switching amplifiers
- Pulse transformer driver



EV Charging



Building Automation



Industrial Automation



Switch Mode Power Supply



Appliances



Power Inverter

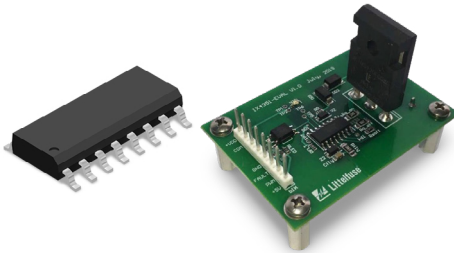


Medical Equipment



Cordless Power Tool

## SiC-MOSFETs



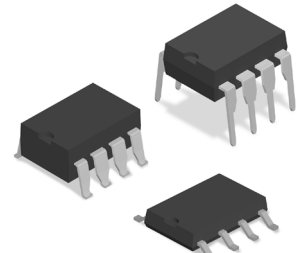
### Features:

- Separate 9 A peak source and sink outputs
- $V_{DD}$  input supply voltage: 13 to 25 V
- Internal charge pump regulator
- Adjustable gate drive voltage:  $-10\text{ V}$  to  $+25\text{ V}$
- Internal logic level shifters
- Desaturation detection with soft shutdown sink driver
- Under Voltage Lockout (UVLO)
- Thermal shutdown
- AEC-Q100 Automotive-Grade qualified

### Application Examples:

- On-board chargers
- DC-DC converters
- Electric vehicle charging stations
- Motor controllers
- Power inverters

## Optically Isolated Photovoltaic & Load-biased



### Features:

- Isolated 5.5 V and 12 V photovoltaic output
- Floating outputs for parallel or series configuration
- Dual optically isolated photovoltaic devices
- Requires no load-side power supply
- Only 2.5 mA input LED current to drive external MOSFET
- Low drive power requirements (TTL / CMOS compatible)
- Load-biased voltages up to 570 V (600  $V_P$ )
- Fast switching speeds: 40  $\mu\text{s}$  on; 400  $\mu\text{s}$  off

### Application Examples:

- Instrumentation
- Medical equipment isolation
- Appliances
- Meters
- Security
- Industrial controls



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