

### Features

- Drives Two N-MOSFETs
- Adaptive Shoot-Through Protection
- Supports High Switching Frequency
- Tri-State PWM Input for Power Stage Shutdown
- Output Disable Function
- Integrated Boost Diode
- Integrated Gate-to-Source Discharge Resistors
- Low Bias Supply Current
- VCC POR Feature Integrated
- TDFN8-2x2 and TDFN8-3x3 package
- Green Product (RoHS, Lead-Free, Halogen-Free Compliant)

### Applications

- Core Voltage Supplies for CPU/GPU
- High Frequency Low Profile DC/DC Converters
- High Current Low Output Voltage DC/DC Converters
- High Input Voltage DC/DC Converters

### General Description

The GS6301 is 5V MOSFET driver for driving two power N-MOSFETs in a synchronous rectified buck converter, and it is especially suited for mobile computing applications. This device supports output disable function to reduce power consumption. Pull low EN pin or high-impedance at PWM pin, and then both gate drives are turned off to prevent rapid output capacitor discharge during system shutdown. It also sustains three PWM input states that along with PWM controller to provide a complete power solution.

The GS6301 implements integrated bootstrap diode to reduce external component, and the integrated resistors commonly placed between MOSFET gate and source for discharge are also making external component minimal.

This driver feature adaptive shoot-through protection to prevent both MOSFETs from conducting simultaneously. The GS6301 is available in package TDFN8-2x2 and TDFN8-3x3.