

Features

- Build-in Both High-side and Low-side Gate Drivers With Independent Variable Gate drive Voltage from 4.5 V to 13.2V
- Internal Bootstrap Schottky Diode
- Large Drivers Up to Drive 6nF Sever Class FETS
- Support Switching Frequency: 200kHz~1MHz
- Configurable PWM Modes of Operation:
 - Active Tri-Level, 1.8V PWM Level Normally
 - Generic Tri-State, 3.3V PWM Level Normally
- Adaptive Non-overlap Protection
- Build-in VCC Under Voltage Protection
- TDFN10-3x3 Package
- Green Product (RoHS, Lead-Free, Halogen-Free Compliant)

Applications

- Multiphase synchronous buck converter for server and desktop computers
- High efficiency and compact VRM
- High current DC/DC converters

Typical Application

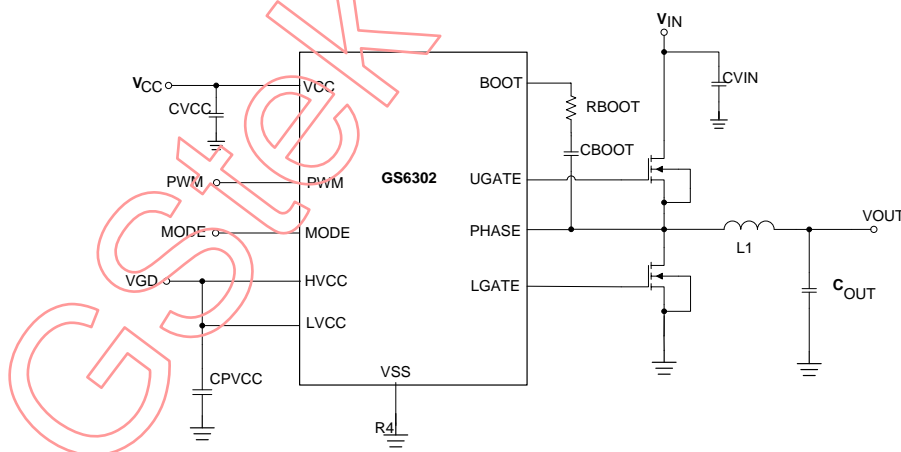


Figure 1 Typical Application of GS6302

General Description

The GS6302 is a high performance gate driver which can driver both high-side and low-side N-channel external MOSFETs in a synchronous buck converter.

The GS6302 features large driver capacity. The GS6302 support individual control of both the high-side and low-side gate drive voltages from 4.5V to 13.2V to optimize efficiency.

The GS6302 supports two PWM level modes. In Active Tri-Level PWM mode, system receives 1.8V logic high level signal normally. In generic tri-state PWM mode, system receives 3.3V logic high level signal normally and disables both MOSFETs after 80nS tri-state detection delay.

The GS6302 integrated bootstrap diode reducing external component count. The GS6302 also features an adaptive dead time control for shoot-through protection. This minimizes body diode conduction time to provide high efficiency.

The GS6302 is available in a TDFN10-3x3 package.

This document is GStek's confidential information. Anyone having confidential obligation to GStek shall keep this document confidential. Any unauthorized disclosure or use beyond authorized purpose will be considered as violation of confidentiality and criminal and civil liability will be asserted.