High Efficiency 8A Synchronous Buck Converter

Features

- **Ultra-High Efficiency**
- **Low Quiescent Current of 60μA**
- **Integrated 15mΩ at VCC=5V N-Channel MOSFET for Low Side**
- **Integrated 30mΩ at VCC=5V N-Channel MOSFET for High Side**
- **No Current-Sense Resistor (Lossless I_{LIMIT})**
- **Quasi-PWM with 100ns Load-Step Response**
- **1% VOUT Accuracy Over Line and Load**
- **Programmable Switching Frequency**
- **0.75V to 3.6V Adjustable Output Range**
- **3V to 28V Adapter or Battery Input Range**
- **Integrated Boost Switch**
- **OVP & UVP**
- **Over Temperature Protection (non-latch)**
- **2ms Soft-Start**
- **Power-Good Indicator**

General Description

G5332A is a 8A, synchronous DC/DC buck converter with integrated 30mΩ N-channel high-side MOSFET and 15mΩ N-channel low-side MOSFET. It uses constant on-time control scheme to handle wide input/output voltage ratios with ease and provides 100ns "instant-on" response to load transients while maintaining a relatively constant switching frequency. The G5332A achieves high efficiency at a reduced cost by eliminating the current-sense resistor found in traditional current-mode PWMs. Single-stage buck conversion allows these devices to directly step down high-voltage batteries for the highest possible efficiency. The G5332A is intended for the power supply of Notebook Computer, or other low-voltage supplies as low as 0.75V. The G5332A is available in QFN3X3-21 package.

Applications

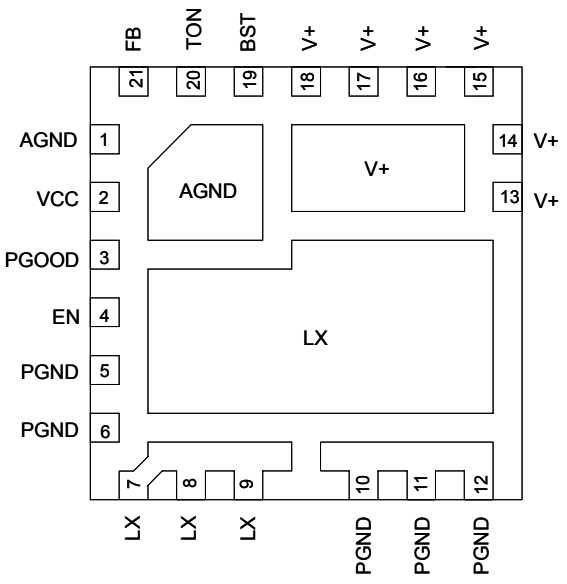
- **Notebook Computers**
- **I/O Supply**
- **Chipset/RAM Supply as Low as 0.75V**
- **Networking Power Supply**

Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G5332AQP1U	5332A	-40°C to +85°C	QFN3X3-21

Note: QP: QFN3X3-21
1: Bonding Code
U : Tape & Reel

Pin Configuration



G5332A QFN3X3-21

Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.