

High-Speed Step-Down Controller

Features

- Ultra-High Efficiency
- 4700ppm/°C $R_{DS(ON)}$ Current Sensing (without Current-Sense Resistor)
- Quasi-PWM with 100ns Load-Step Response
- Built-in 0.5% 0.7V Reference
- 0.7V to 2.6V Adjustable Output Range
- 4.5V to 28V Battery Input Range
- 4 Selectable Frequency Setting
- Integrated Boost Switch
- OVP & UVP
- 1.5ms Voltage Servo Soft-Start
- Drives Large Synchronous-Rectifier FETs
- Power-Good Indicator
- Thermal Shutdown (Non-latch)

General Description

G5318 is a small-sized step-down controller 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 G5318 achieves high efficiency at a reduced cost by eliminating the current-sense resistor found in traditional current-mode PWMs. Efficiency is further enhanced by an ability to drive very large synchronous rectifier MOSFETs. The G5318 is intended for CPU core, chipset, DRAM, or other low-voltage supplies as low as 0.7V. The G5318 is available in TDFN3X3-10 package.

Applications

- Notebook Computers
- CPU Core Supply
- I/O Supply
- Chipset/RAM Supply as Low as 0.7V

Ordering Information

| ORDER NUMBER | MARKING | TEMP. RANGE | PACKAGE (Green) |
|--------------|---------|----------------|-----------------|
| G5318RE1U | 5318 | -40°C to +85°C | TDFN3X3-10 |
| G5318RE1D | 5318 | -40°C to +85°C | TDFN3X3-10 |

Note: RE: TDFN3X3-10

1: Bonding Code

U & D : Tape & Reel

Pin Configuration

