L6733

Advanced modular synchronous PWM controller

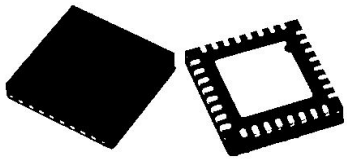
Data Brief

Features

- High current embedded drivers with programmable supply voltage
- Operative supply voltage range: 4.5 V to 16 V with selectable UVLO threshold
- Adjustable output voltage: 0.6 V reference
- 0.8 % accuracy over line ant temperature variations (0 °C to 125 °C)
- External reference tracking
- Integrated remote sense amplifier
- Current sharing bus control
- DCM to optimize efficiency at light-load
- Hot-plug control capability
- Margin mode and synchronization
- Pre-bias start-up management
- Thermal shut-down
- Over current protection thermal compensation
- Programmable over/under voltage protection
- FB disconnection protection
- Power good output
- Programmable oscillator: 200 kHz to 1 MHz
- VFQFPN32 package; 5x5 mm

Applications

- High-performance DC-DC modules
- Redundant power supply with hot-plug
- niPoL converters



VFQFPN32 5x5 mm

Description

L6733 is a single-phase PWM controller designed to drive N-channel power MOSFETs in a synhronous rectified buck topology also providing DCM operations to optimize efficiency in light-load conditions.

The device is specifically designed to implement redundant and parallelable DC-DC converters. Current-sharing bus control and OR-Ing fet driving circuitry are embedded featuring proper protection management. Synchronization is also available helping further in reducing input capacitance in paralleled converters. Programmable margin mode control through single pin allow saving external logic.

L6733 provides an integrated 0.6 V reference allowing regulating output voltages with ±0.8 % accuracy over line and temperature variations (0 °C to 125 °C) recovering connector and PCB losses through the remote amplifier provided. Programmable dual level over current protection as well as over and under voltage protection are provided. Current information is monitored across the main inductor DCR saving the use of expensive and space-consuming sense resistors.

Oscillator is internally fixed to 200 kHz and adjustable up to 1 MHz.

Table 1. Device summary

Order codes	Package	Packing
L6733	VFQFPN32	Tube
L6733TR		Tape and reel

For further information contact your local STMicroelectronics sales office. www.st.com

1 Revision history

Table 2. Document revision history

Date	Revision	Changes
07-Mar-2008	1	Initial release

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