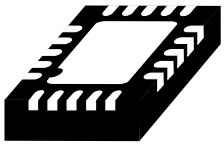
PM8908

6 A monolithic buck converter for DDR memory termination

Data brief



QFN20 3.5 x 4.0 mm

Features

- Integrated MOSFETs for high efficiency
- ± 6 A continuous output current
- Current COT architecture
- 1 V to 6 V input voltage (VIN)
- 5.0 V supply voltage (VCC)
- Constant frequency mode
- 1% output voltage accuracy
- Two programmable switching frequency (0.6 MHz or 1 MHz)
- ADJ output voltage from 0.5 V to 2 V
- Embedded bootstrap diode
- OV/UV/OC and overtemperature protection
- Soft-off with integrated discharge resistor
- External tracking
- Power Good output
- QFN20 3.5 x 4.0 mm compact package

Applications

- Memory termination regulator for DDR3, DDR4 and low power DDR3/DDR4
- Notebook/desktop/server
- Low voltage application for 1 V to 6 V input rails

Description

The PM8908 device is a high efficiency monolithic step-down switching regulator designed mainly for the DDR termination. It is able to deliver or sink up to the 6 A continuous current.

The IC operates from 1 V to 6 V input voltage (V_{IN}).

The device uses a COT control loop that provides very good performances in terms of load and line transients. The current sense is internally thermally compensated for optimum precision.

The output voltage is adjusted from 0.5 V to 2 V with ± 1% accuracy over temperature variations.

It also provides external tracking support.

The PM8908 provides positive and negative overcurrent protection as well as over/undervoltage and overtemperature protection. PGOOD output easily provides real-time information on the output voltage.

The PM8908 is available in a QFN20 3.5 x 4.0 mm package.

Table 1. Device summary

Order codes	Package	Packaging
PM8908TR	QFN20 (3.5 x 4.0 mm)	Tape and reel

Revision history

Table 2. Document revision history

Date	Revision	Changes
17-Mar-2014	1	Initial release.

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