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MP3427

17A, 600kHz, 8V Wide Input Range Synchronous Boost Converter in a small 3x4mm QFN Package

DESCRIPTION

The MP3427 is a 600kHz fixed-frequency, high- efficiency, wide input range, current-mode boost converter with optional internal or external current-sensing configuration for high-integration and high-power applications. With a current limit above 17A, the MP3427 supports up to 30W load power from Li-ion battery input. The MP3427 features a 10mΩ power switch and a synchronous gate driver for high efficiency. An external compensation pin gives the user flexibility in setting loop dynamics and obtaining optimal transient performance at all conditions.

The MP3427 includes under-voltage lockout (UVLO), switching-current limiting and thermal shutdown (TSD) to prevent damage in the event of an output overload.

The MP3427 is available in a low-profile 22-pin 3mmx4mm QFN package.

FEATURES

- 3V-to-8V Wide Input Range
- Integrated 10mΩ Low-Side Power FET
- SDR Driver for Synchronous Solution
- >17A Switch-Current Limit
- Optional Internal/External Current-Sensing Configuration
- External Soft-Start and Compensation for Higher Flexibility
- Programmable UVLO and Hysteresis
- < 1μA Shutdown Current
- Thermal Shutdown at 150°C
- Available in a 3x4mm QFN-22 Package

APPLICATIONS

- Tablets
- Power Banks
- Fuel Cells
- POS Systems
- Electronic Cigarettes

All MPS parts are lead-free and adhere to the RoHS directive. For MPS green status, please visit MPS website under Products, Quality Assurance page. "MPS" and "The Future of Analog IC Technology" are registered trademarks of Monolithic Power Systems, Inc.

TYPICAL APPLICATION

