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MP1475S

High-Efficiency, 3A, 16V, 500kHz Synchronous, Step-Down Converter

DESCRIPTION

The MP1475S is a high-frequency, synchronous, rectified, step-down, switch-mode converter with built-in power MOSFETs. It offers a compact solution to achieve a 3A continuous output current with excellent load and line regulation over a wide input-supply range. The MP1475S has synchronous-mode operation for higher efficiency over the output current-load range.

Current-mode operation provides fast, transient response and eases loop stabilization.

Full protection features include over-current protection (OCP) and thermal shut down (TSD).

The MP1475S requires a minimal number of readily available, standard, external components and is available in a space-saving 8-pin TSOT23 package.

FEATURES

- Wide 4.5V to 16V Operating-Input Range
- 120mΩ/50mΩ Low RDS(ON) Internal Power MOSFETs
- High-Efficiency Synchronous-Mode Operation
- Fixed 500kHz Switching Frequency
- Synchronizes from a 300kHz to 2MHz External Clock
- Power-Save Mode at Light Load
- Internal Soft-Start
- Power Good Indicator
- Over-Current Protection and Hiccup
- Thermal Shutdown
- Output Adjustable from 0.8V
- Available in a 8-pin TSOT-23 Package

APPLICATIONS

- Notebook Systems and I/O Power
- Digital Set-Top Boxes
- Flat-Panel Television and Monitors
- Distributed Power Systems

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TYPICAL APPLICATION

