MP28252
High Efficiency 2A, 21V, 500kHz Synchronous Step down Converter

## The Future of Analog IC Technology ${ }^{\star}$

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## DESCRIPTION

The MP28252 is a high frequency synchronous rectified step-down switch mode converter with built in internal power MOSFETs. It offers a very compact solution to achieve 2A continuous output current over a wide input supply range with excellent load and line regulation. The MP28252 has synchronous mode operation for higher efficiency over output current load range.

Current mode operation provides fast transient response and eases loop stabilization.
Full protection features include OCP and thermal shut down.

The MP28252 requires a minimum number of readily available standard external components and is available in a space saving $3 \mathrm{~mm} \times 4 \mathrm{~mm}$ 14-pin QFN package.

## FEATURES

- Wide 4.5 V to 21 V Operating Input Range
- 2A Output Current
- Low Rds(on) Internal Power MOSFETs
- Proprietary Switching Loss Reduction Technique
- High Efficiency Synchronous Mode Operation
- Fixed 500 KHz Switching Frequency
- Sync from 300 KHz to 2 MHz External Clock
- Internal Compensation
- Integrated Bootstrap Diode
- OCP Protection and Thermal Shutdown
- Output Adjustable from 0.805V
- Available in a $3 \mathrm{~mm} \times 4 \mathrm{~mm}$ 14-Pin QFN Package
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## APPLICATIONS

- Notebook Systems and I/O Power
- Networking Systems
- Digital Set Top Boxes
- Personal Video Recorders
- Flat Panel Television and Monitors
- Distributed Power Systems
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## TYPICAL APPLICATION



Efficiency vs. Output Current


