



MP2319

3A, 18V, 650kHz, High-Efficiency, Synchronous, Step-Down Converter in 8-Pin TSOT23

DESCRIPTION

The MP2319 is a fully-integrated, high-frequency, synchronous, rectified, step-down, switch-mode converter with internal power MOSFETs. The MP2319 offers a very compact solution that achieves 3A of continuous output current with excellent load and line regulation over a wide input range. The MP2319 has synchronous mode operation for higher efficiency over the output current load range. Constant-on-time control operation provides a very fast transient response, easy loop design, and very tight output regulation.

Full protection features include short-circuit protection (SCP), over-current protection (OCP), under-voltage protection (UVP), over-voltage protection (OVP), and thermal shutdown. The MP2319 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 18V Operating Input Range
- 3A Output Current
- 105mΩ/57mΩ Low RDS(ON) Internal Power MOSFETs
- Output Adjustable from 0.8V
- EN Shutdown Output Discharge
- Internal Soft Start
- High-Efficiency Synchronous Mode Operation
- Fixed 650kHz Switching Frequency
- EN and Power Good for Power Sequencing
- Over-Current Protection (OCP) and Hiccup
- Thermal Shutdown
- Auto-Retry Over-Voltage Protection (OVP)
- Available in a TSOT23-8 Package

APPLICATIONS

- Security Cameras
- Portable Devices, xDSL Devices
- Digital Set-Top Boxes
- Flat-Panel Televisions and Monitors
- General Purposes

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

TYPICAL APPLICATION

