



The Future of Analog IC Technology™

MP1580

2A, 380 KHz

Step-Down Converter

DESCRIPTION

The MP1580 is a monolithic step-down switch mode converter with a built in internal power MOSFET. It achieves 2A continuous output current over a wide input supply range with excellent load and line regulation.

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

Fault condition protection includes cycle-by-cycle current limiting and thermal shutdown. In shutdown mode the regulator draws 23 μ A of supply current.

The MP1580 requires a minimum number of readily available standard external components. A synchronization pin allows the part to be driven to 600KHz.

EVALUATION BOARD REFERENCE

Board Number	Dimensions
EV0007	2.3"X x 1.5"Y x 0.5"Z

FEATURES

- 2A Output Current
- 0.18 Ω Internal Power MOSFET Switch
- Stable with Low ESR Output Ceramic Capacitors
- Up to 95% Efficiency
- 23 μ A Shutdown Mode
- Fixed 380KHz Frequency
- Thermal Shutdown
- Cycle-by-Cycle Over Current Protection
- Wide 4.75 to 25V Operating Input Range
- Output Adjustable from 1.22V to 21V
- Programmable Under Voltage Lockout
- Frequency Synchronization Input
- Available in an 8-Pin SO Package

APPLICATIONS

- Distributed Power Systems
- Battery Chargers
- Pre-Regulator for Linear Regulators

"MPS" and "The Future of Analog IC Technology" are Trademarks of Monolithic Power Systems, Inc.

TYPICAL APPLICATION

