# MP2498

**Integrated 100V Load Dump Protection, 2A Step-Down Regulator**

## DESCRIPTION

The MP2498 is a high frequency monolithic step-down switch mode converter with integrated buck internal high side high voltage power MOSFET and an integrated input overvoltage protection. It provides 2A output with current mode control for fast loop response and easy compensation.

The wide 5V to 24V input range of the buck regulator accommodates a variety of step-down applications, including those in automotive input environment.

High power conversion efficiency over a wide load range is achieved by scaling down the switching frequency at light load condition to reduce the switching and gate driving losses.

Fault condition protection includes cycle-by-cycle current limiting and thermal shutdown.

The MP2498 can survive high-voltage transients such as those found in automotive and industrial applications.

The MP2498 requires a minimum number of readily available standard external components. The MP2498 is available in a 28-pin QFN package.

## FEATURES

- 100V Switch for load dump protection
- Eliminate External Transorb and Fuse
- 250mΩ Internal MOSFET in Buck Regulator
- 150kHz to 2MHz Programmable Switching Frequency to Reduce Radio Interference
- 120μA Quiescent Current
- Ceramic Capacitor Stable
- Up to 95% Efficiency
- Output Adjustable from 0.8V to 15V
- Available in a 4x5 28-Pin QFN Package

## APPLICATIONS

- Automotive Electronics
- Industrial Power Systems
- Distributed Power Systems
- Power Supply for Linear Charger



## TYPICAL APPLICATION