

6V, 3A, DIGITAL HIGH-EFFICIENCY, SYNCHRONOUS, STEP-DOWN CONVERTER

The **MP8843** is a highly integrated, highfrequency, synchronous, step-down switcher with an **I²C control interface**. The MP8843 can support up to 3A of current from a wide 2.6V to 6V input supply range with excellent load and line regulation.

Constant-on-time (COT) control provides a fast transient response, high light-load efficiency, and eases loop stabilization.

The I²C interface allows for communication interface speed up to 3.4 Mbps. It controls the output voltage from 0.6V to 1.1V on the fly with 3.9 mV voltage steps. This interface also controls the output voltage transition slew rate and allows the power-save mode selection to meet different application requirements.

Protection features include internal soft start (SS), over-current protection (OCP), and overtemperature protection (OTP).

The MP8843 requires a minimal number of readily available, standard, external components and is available in an ultra-small QFN-12 (2 mm×2 mm) package.

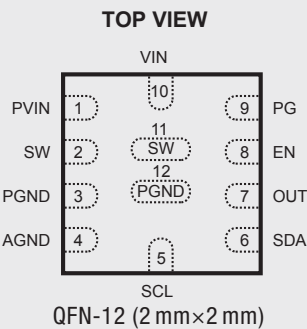
FEATURES

- » Constant-On-Time Control Mode
- » I²C compatible interface up to 3.4 Mbps
- » Programmable output voltage from 0,6V to 1,1 V with 3.9 mV steps
- » Power-Good-Indicator
- » Programmable switching frequency from 1 MHz to 2 MHz
- » Programmable voltage transition slew rate
- » QFN-12 package

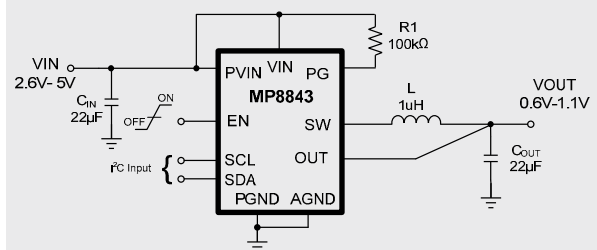
APPLICATIONS

- » Processor Core Supply
- » Micro converters
- » Small/Handheld Devices
- » Storage Drives
- » Portable Instruments
- » Battery-Powered Devices

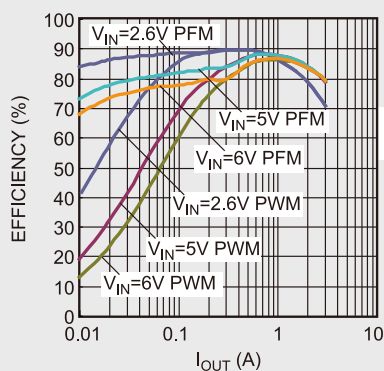
PIN CONFIGURATION MP8843



TYPICAL APPLICATION MP8843



EFFICIENCY VS. LOAD



QUIESCENT VS. TEMPERATURE

