

SYNCHRONOUS STEP-DOWN CONVERTER WITH INTEGRATED INDUCTOR

The **MPM3506A/3510A** are synchronous, rectified, step-down converters with built-in power MOSFETs and inductors. They offer a compact solution with only 4 external components to achieve a 0.6A or 1.2A continuous output current with excellent load and line regulation over a wide input supply range. Both operate in a 1.15MHz switching frequency, which provides fast load transient response. Full protection features include over-current protection (OCP) and thermal shutdown (TSD).

The MPM3506A/3510A converters are available in a space-saving QFN-19 (3mm×5mm×1.6mm) package.

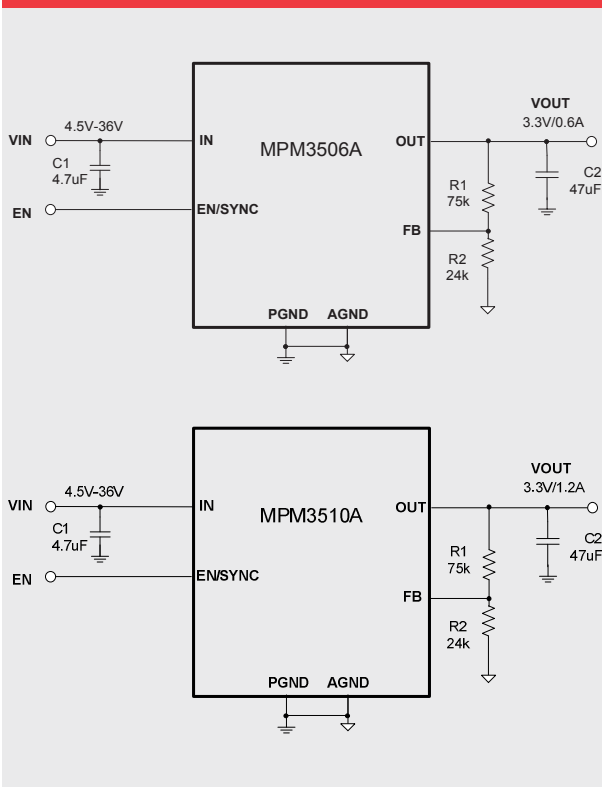
APPLICATIONS

- » Industrial Controls
- » Automotive
- » Medical and Imaging Equipment
- » Telecom Applications
- » LDO Replacement
- » Space and Resource-Limited Applications
- » Distributed Power Systems

FEATURES

- » Complete Switch Mode Power Supply
- » 4.5V to 36V Wide Operating Input Range
- » 0.6A/1.2A Continuous Load Current
- » 90 mΩ/60 mΩ (MPM3506A) / 80 mΩ/50 mΩ (MPM3510A) Low $R_{DS(ON)}$ Internal Power MOSFETs
- » Fixed 1.15 MHz Switching Frequency
- » 800 kHz to 2 MHz Frequency Sync
- » Power-Save Mode for Light Load
- » Power Good Indicator
- » OCP with Valley-Current Detection and Hiccup
- » Thermal Shutdown
- » Output Adjustable from 0.8V
- » Available in a QFN-19 (3mm×5mm×1.6mm) Package
- » Total Solution Size 6.7mm×6.3mm

APPLICATION CIRCUIT



EFFICIENCY VS. LOAD CURRENT

