



The Future of Analog IC Technology®

# MPM6010

High Efficiency 36V/1.5A Module  
Synchronous Step-down LED Driver  
with Integrated Inductor  
AEC-Q100 Qualified

## DESCRIPTION

The MPM6010 is a synchronous, rectified, step-down LED driver with built-in power MOSFETs, inductor and two capacitors. It offers a very compact solution with only 4 external components to achieve a 1.5A of continuous output current with excellent load and line regulation over a wide input supply range. The MPM6010 has synchronous mode operation to get high efficiency.

Full protection features include over-current protection (OCP) and thermal shut down (TSD).

MPM6010 eliminates design and manufacturing risks while dramatically improving the time to market.

The MPM6010 is available in a space-saving QFN-17 (3mmx5mmx1.6mm) package.

Please email "[mpminfo@monolithicpower.com](mailto:mpminfo@monolithicpower.com)" for more information

## FEATURES

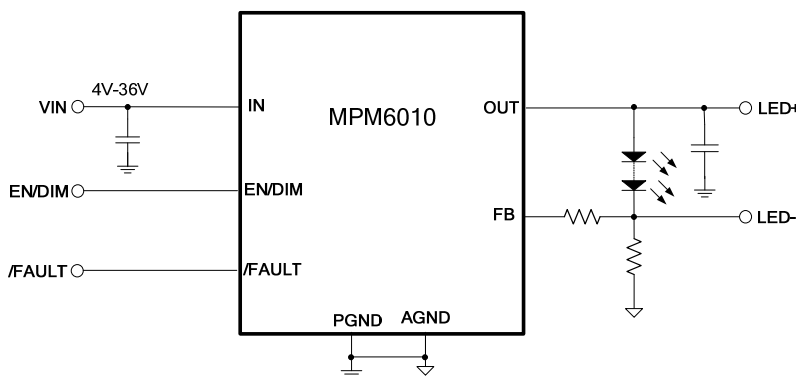
- Complete Switch Mode Power Supply
- Wide 4V-to-36V Operating Input Range
- 85mΩ/50mΩ Low R<sub>DS(ON)</sub> Internal Power MOSFETs
- High-Efficiency Synchronous Mode Operation
- Default 2.2MHz Switching Frequency
- PWM Dimming (Min 100Hz Dimming Frequency)
- Forced CCM Mode
- 0.2V Reference Voltage
- Internal Soft-Start
- Fault Indication for LED Short, Open and Thermal Shutdown
- Over-Current Protection (OCP) with Valley-Current Detection
- Thermal Shutdown
- Available in a QFN-17 (3mmx5mmx1.6mm) Package
- Available Wettable Flank
- AEC-Q100 Qualified

## APPLICATIONS

- Automotive LED Lighting

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

## TYPICAL APPLICATION



Efficiency vs. LED Current

