



MP4425M

High Efficiency 1.5A, 36V, 2.2MHz Synchronous Step Down LED Driver

DESCRIPTION

The MP4425M is a high-frequency, synchronous, rectified, step-down, switch-mode white LED driver with built-in power MOSFETs. It offers a very compact solution to achieve a 1.5A continuous output current with excellent load and line regulation over a wide input supply range. The MP4425M has synchronous mode operation to get high efficiency.

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

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

The MP4425M requires a minimal number of readily-available standard external components, and is available in a space-saving QFN-13 (2.5mmx3mm) package.

FEATURES

- EMI Reduction Technique
- Wide 4V-to-36V Operating Input Range
- 85mΩ/50mΩ Low RDS(ON) 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-13 (2.5mmx3mm) Package
- CISPR25 Class 5 Compliant

APPLICATIONS

- Automotive LED Lighting

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