

Offline Isolated TRIAC Dimmable PSR Fly-back LED Controller with Active PFC

Features

- Isolated PFC LED Controller with Active PFC
- TRIAC Dimmable
- High Current Accuracy of Line Regulation
- High Power Factor
- Critical Conduction Mode Operation
- Low Start-up Current
- Cycle-by-cycle Current Limit
- Overvoltage Protection
- Open LED Detection
- Short LED Detection
- Overtemperature Protection
- Available SOIC-8L Package

Applications

- Solid State Lighting
- Industrial and Commercial Lighting
- Residential Lighting

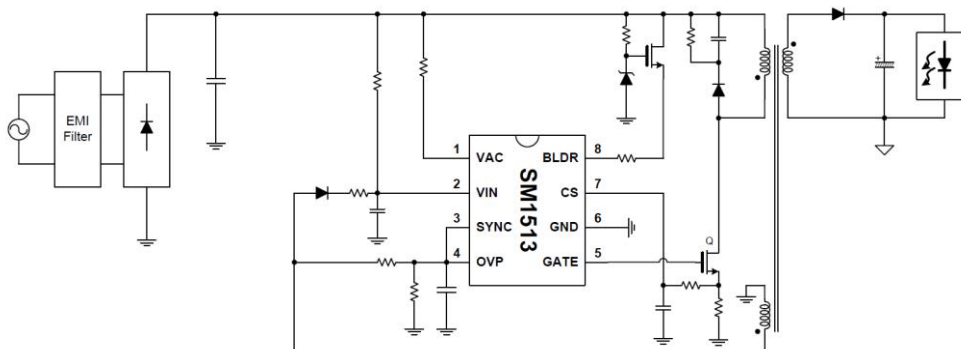
Description

The SM1513 is a primary-side-control off-line LED lighting controller which can achieve high power factor and accurate LED current for an isolate lighting application in a single stage converter. The controller operates using critical conduction mode. It can reduce the MOSFET switching loss and improve the converter efficiency. This primary side control method can control the LED current accurately from the primary side information. It can simplify the LED lighting system design by eliminating the secondary feedback components and the opto-coupler. The device integrates power factor correction function and multi protection functions. Protection functions such as undervoltage lock-out, overvoltage protection, short-circuit protection, cycle-by-cycle current limit, open lamp detection, short lamp detection and over temperature protection enhance system reliability and safety. The SM1513 is available in a small SOIC-8L package.

Device Information

Part	Package	Size
SM1513	8 SOP	5 mm x 6 mm

Simplified Block Diagram



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