

PART NUMBER (型号) HVLED805

SUPPLIER (供应商)



DESCRIPTION

The HVLED805 is a HV primary switcher intended for operating from the AC mains with minimum parts to provide an efficient, compact and cost effective solution for LED driving. It combines a high-performance low-voltage PWM controller chip and an 800V, avalanche-rugged power MOSFET in the same package. HVLED805 controller IC specifically designed for ZVS (zero voltage switching) fly-back LED drivers, with constant output current (CC) regulation using primary sensing feedback. This eliminates the need for the opto-coupler, the secondary voltage reference, as well as the current sense and still maintaining a good LED current accuracy. Moreover it guarantees a safe operation when short circuit of one or more LEDs occurs.

描述

HVLED805是一个具有高压开关，可以在最小的AC输入去提供一个高效率的操作，是一个极精简并具低成本的LED驱动解决方案，在这个封装体中结合了高效率低电压的PWM控制晶片及800V额定电压的MOSFET。这个HVLED805的控制器采用ZVS(Zero Voltage Switching) flyback架构，与一个定电流的控制反馈，在电路中也不需要光敏开关的设计，仍旧可保持二次测的电流准确性，并且有二次测的短路保护。

TARGET APPLICATION (目标应用)

Light bulb A19, candle lamp 球泡灯，蜡烛灯

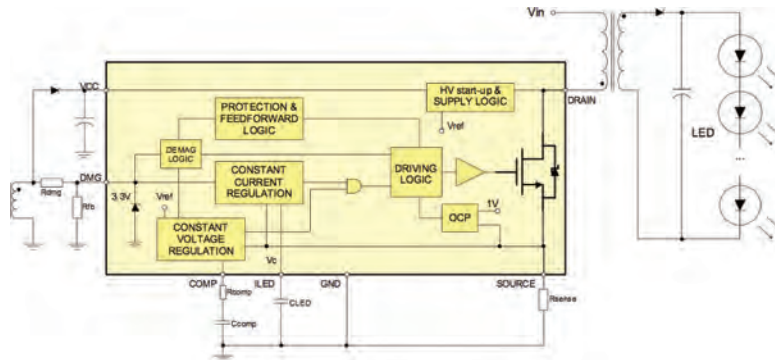
IC FEATURES (IC特性)

- Distinctive Features 特点：** Quasi-resonant (QR) zero voltage switching and ZVS operation
准谐振零电压开关与零电压切换操作
- Topology 线路结构：** Isolated flyback 隔离式flyback
- Protection 保护：** Various, OCP and OVP etc. 短路保护与开路保护
- Switching Frequency 开关频率：** QR Mode 准共振式
- Driving Current 驱动电流：** Not specified
- Package 封装：** S016

HVLED805 AC/DC 3W APPLICATION (应用)

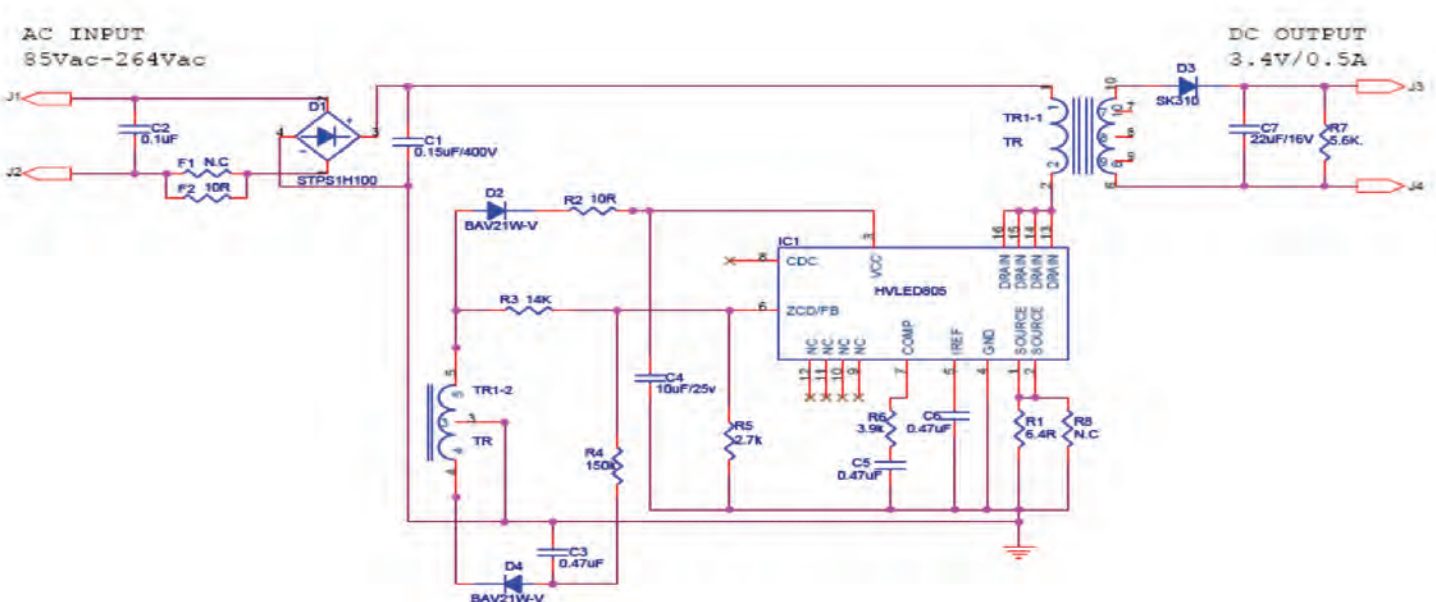
- Peak Power 最大功率：** 3W (瓦)
- Input Voltage 输入电压：** Universal
- Output Voltage 输出电压：** 3.4V (伏)
- Estimated Efficiency 预计效率：** 80%
- Regulation 校准：** +/-5%
- Power Factor 功率因数：** 0.7 or above 0.7或以上

CONTROLLER BLOCK DIAGRAM (控制器原理图)



Testing Figures (测试数据)		
Input Voltage 输入电压	Efficiency 效能	Current 电流
115V	77.50%	0.51A
230V	78.20%	0.50A

APPLICATION CIRCUIT (应用电路图)



PART NUMBER (型号) VIPer15 / VIPer25

SUPPLIER (供应商)



DESCRIPTION

The device is an off-line converter with an 800V rugged power section, a PWM control, double levels of overcurrent protection, overvoltage and overload protections, hysteretic thermal protection, softstart and safe auto-restart after any fault condition removal. Burst mode operation and offers very low consumption helps to meet the standby energy saving regulations. The quasi resonant feature reduces EMI filter cost. Brown-out and brown-in function protects the switch mode power supply when the rectified input voltage level is below the normal minimum level specified for the system. The high voltage start-up circuit is embedded in the device.

描述

VIPerx5是一个单片集成离线转换器，集成了一颗800V MOSFET和一个PWM控制器，具有非常完备的保护功能，包括两级过流保护，过压保护，过载保护，过温保护以及软启动功能，当故障去除后，IC能自动重启。脉冲模式和极低的工作消耗使器件能轻易的满足各种认证对待机的要求。准谐振的工作模式有助于减少EMI滤波器件成本。Brown-out功能可以在低于规格的输入电压条件下关断转换器避免损坏。此外内置的高压启动电路可以进一步简化外围电路的设计。

TARGET APPLICATION (目标应用)

LED driver, (others: Auxiliary power supply, SMPS for set-top boxes, DVD players)
 LED驱动 (其他：辅助电源、机顶盒、DVD播放器电源)

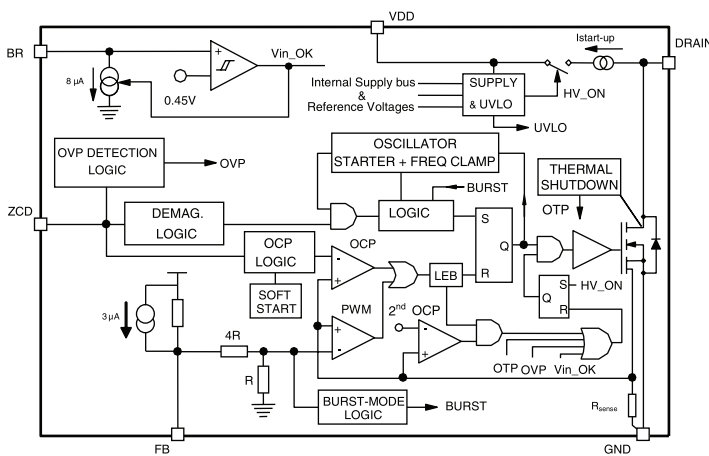
VIPer25 for AC/DC 9W APPLICATION (应用)

Peak Power 最大功率： 100W (瓦)
Input Voltage 输入电压： 90 ~ 264Vac (伏)
Output Voltage 输出电压： 31.5V ±10%
Estimated Efficiency 预计效率： 80%
Regulation 校准： 0.29A ±20%
Power Factor 功率因数： 0.8 or above 0.8或以上

IC FEATURES (IC特性)

- Distinctive Features 特点：** 800V power section, Quasiresonant (QR) operation
800V开关管、准谐振工作模式
- Topology 线路结构：** Flyback 反激
- Protection 保护：** OCP, OVP, OTP, Brown-out
过流、过压、过温、Brown-out
- Switching Frequency 开关频率：** Variable frequency 变频
- Driving Current 驱动电流：** 0.7A (drain current limitation)
- Package 封装：** DIP7, SO16 narrow

CONTROLLER BLOCK DIAGRAM (控制器原理图)



Testing Figures (测试数据)			
Input Power 输入功率	Output Voltage 输出电压	Output Current 输出电流	Efficiency 效率
11.97W	31.5V	0.3A	80.00%

APPLICATION CIRCUIT (应用电路图)

