

PART NUMBER (型号) SSL1523

SUPPLIER (供应商) 

DESCRIPTION

The SSL1523 9W LED driver is a high performance solution for a professional non-dimmable application with multiple high power LEDs. This solution is target for indoor lighting application where it can generate 65Lm/W with Cree XPE LED and LEDLINK fixtures. SSL1523 is a build in MOSFET controller where it has various protection for LED driver application.

描述

SSL1523 9W LED 方案主要用在非调光的LED室内照明应用这个方案与CREE XPE-LED及雷笛克的灯壳安装起来可到65Lm/W，SSL1523是一个内挂MOS管的控制器，可以提供不同的保护。

TARGET APPLICATION (目标应用)

Indoor lighting, lighting bulb and retrofit
 室内照明，传统灯具升级改造

IC FEATURES (IC特性)

- Distinctive Features 特点：** Build in MOSFET, valley switching 内置MOS管、谷底开关
- Topology 线路结构：** Non isolated or isolated flyback 非隔离降压及隔离反激
- Protection 保护：** Various OVP, OCP, OTP etc.
- Switching Frequency 开关频率：** 90KHz
- Package 封装：** S016

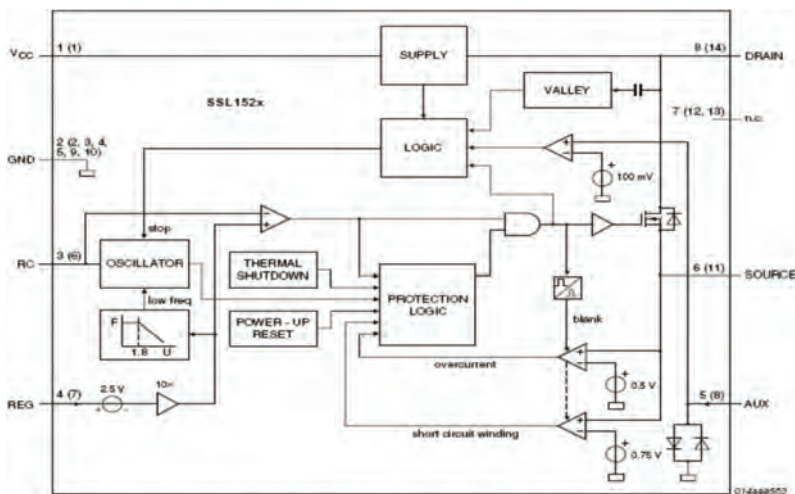
APPLICATION CIRCUIT FEATURES (应用电路特性)

- Peak Power 最大功率：** 8W (瓦)
- Input Voltage 输入电压：** 85 - 132V and 180 - 260V (伏)
- Output Voltage 输出电压：** 28 - 34V (伏)
- Estimated Efficiency 预计效率：** 83% or above 83%或以上
- Regulation 校准：** +/-5%
- Power Factor 功率因数：** 0.7 or above 0.7或以上
- Driving Current 驱动电流：** 330mA (毫安)

INPUT: 185vac~270vac,50Hz
 Output: 10v~30v(3LEDs~9LEDs), 330mA

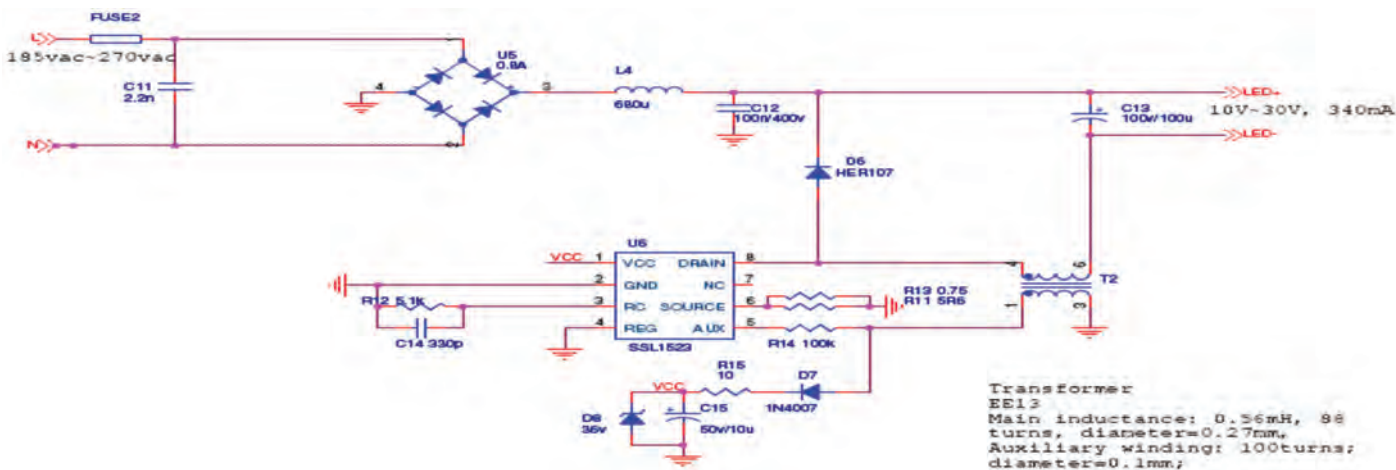


CONTROLLER BLOCK DIAGRAM (控制器原理图)




Testing Figures (测试数据)			
LED number : 9LEDs			
Line voltage (v)	185	220	260
Input power (W)	9.882	10.38	10.9
PF value	0.863	0.82	0.785
Output power (W)	8.422	8.781	9.103
LED current (mA)	308.2	320.4	330.1
LED voltage	28.09	27.99	28.04
Efficiency	0.852	0.846	0.835

APPLICATION CIRCUIT (应用电路图)



Transformer
 EE13
 Main inductance: 0.36mH, 98 turns, diameter=0.27mm,
 Auxiliary winding: 100turns; diameter=0.1mm;

PART NUMBER (型号) SSL2101 / SSL2102

SUPPLIER (供应商) 

DESCRIPTION

This application presents an AC/DC LED driver solution developed by NXP SSL2101. The SSL2101 is a Switched Mode Power Supply (SMPS) controller IC that operates directly from rectified mains and also in combination with a phase cut dimmer. It is designed to drive LED devices. SSL2101 includes a high-voltage power switch and a circuit to allow start-up directly from the rectified mains voltage. Furthermore the device includes high-voltage circuitry to supply the phase cut dimmer. Target application include indoor lighting, interior lighting as well as bulb replacement/retrofit lighting.

描述

这篇应用注释描述了采用恩智浦SSL2101的一个AC/DC LED驱动方案。SSL2101是一款开关电源控制芯片，可直接在市电整流之后工作，也可以接一个切相的调光器。它内部包含了一个高压开关管且可以直接从市电高压启动，它可用来设计驱动LED。此外，它内部还有配合切相调光器工作的高压开关电路。它的目标应用室内照明，如灯泡的替换或者升级改造。

TARGET APPLICATION (目标应用)

Retrofit lighting, Indoor lighting 室内照明/ LED升级改造照明
 ** There is another SSL1523 non-dimming from NXP, contact Arrow FAE for details.
 另有一款非调光的SSL1523，请垂询艾睿的技术支持工程师。



IC FEATURES (IC特性)

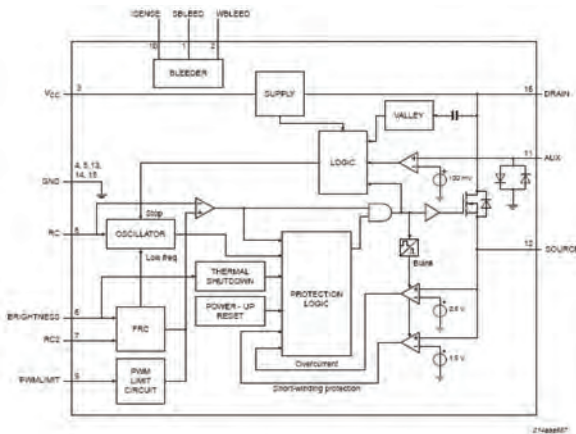
- Distinctive Features 特点：** Built-in MOSFET, low Rds(on), valley switching and demagnetization
 内置MOS管、低导通电阻、谷底开关和磁复位技术
- Topology 线路结构：** Compatible with non-isolated buck, isolated flyback
 可兼用于非隔离降压及隔离反激
- Protection 保护：** OTP, OCP and short winding protection 过温过流及短路保护
- Frequency 开关频率：** RC user defined 用户定义开关频率
- Package 封装：** SO16
- EMI 电磁干扰：** Valley switching reduce EMI filter 谷底开关技术可减小EMI滤波器



SSL2101 SOLUTION FOR AC/DC RETROFIT CONSTANT CURRENT APPLICATION (SSL2101调光室内照明)

- Peak Power 最大功率：** GU10 1W to 10W, downlight up to 15W GU10 1W到10W(瓦)、射灯可高达15W(瓦)
- Input Voltage 输入电压：** 120V or 220V (伏)
- Power Factor 功率因素：** PF>0.9 for 120V and 220V input 功率因素达0.9以上
- Estimated Efficiency 预估效率：** 75% or above 75%甚至更高
- Output Current 输出电流：** 500mA (毫安)
- Dimming 调光：** 0.1% to 100%, compatible to leading edge dimmer and trailing edge dimmer 可满足前切及后切的调光器
- Others 其他：** E-cap free design enable extended life 可不使用电解电容来延长寿命

CIRCUIT FUNCTIONAL BLOCK DIAGRAM (电路功能框)



Compatible Dimmer List — refer to NXP demoboard (相容的调光器)

Manufacturer	Type (Voltage V)	Power	Load	Range
OPUS	852.390 (230V)	60-400	Ha/Inc	0.60%
OPUS	852.392 (230V)	20-500	Inc	0.50%
Bush-Jaeger	2250U (230V)	20-600	Ha/Inc	0.03%
Bush-Jaeger	2247U (230V)	20-500	Ha/Inc	0.07%
Bush-Jaeger	6519U (230V)	40-550	Ha/Inc	8.40%
Gira	1184 (230V)	60-400	Inc	1%
Everflourish	EF0700D (230V)	50-300	Ha/Inc	0.20%
Drespa	0817 (230V)	20-315	Ha/Inc	3.40%
Ehamann	39 Domus (230V)	20-500	Ha/Inc	1%
Drespa	815 (230V)	20-500	Inc	1.10%
Lutron	TG-600PH-WH (120V)	600	Inc	0% (off)
Levitron	L12-6641-W (120V)	600	Inc	0% (off)
Levitron	L02-700-W (120V)	600	Inc	0% (off)
Levitron	6602-1W (120V)	600	Inc	0% (off)
Levitron	6683-W (120V)	600	Inc	0% (off)
Levitron	R12-6631-LW (120V)	600	Inc	0% (off)
Cooper	6001 (120V)	600	Inc	0% (off)
Lutron	MIR-600THWWH (120V)	600	Ha/Inc	0.90%

AC/DC LED DRIVER WITH ISOLATED TRIAC DIMMING APPLICATION (AC/DC隔离式TRIAC调光应用)

