



# SC5199

## LCD 背光电源驱动 IC

### 主要特点

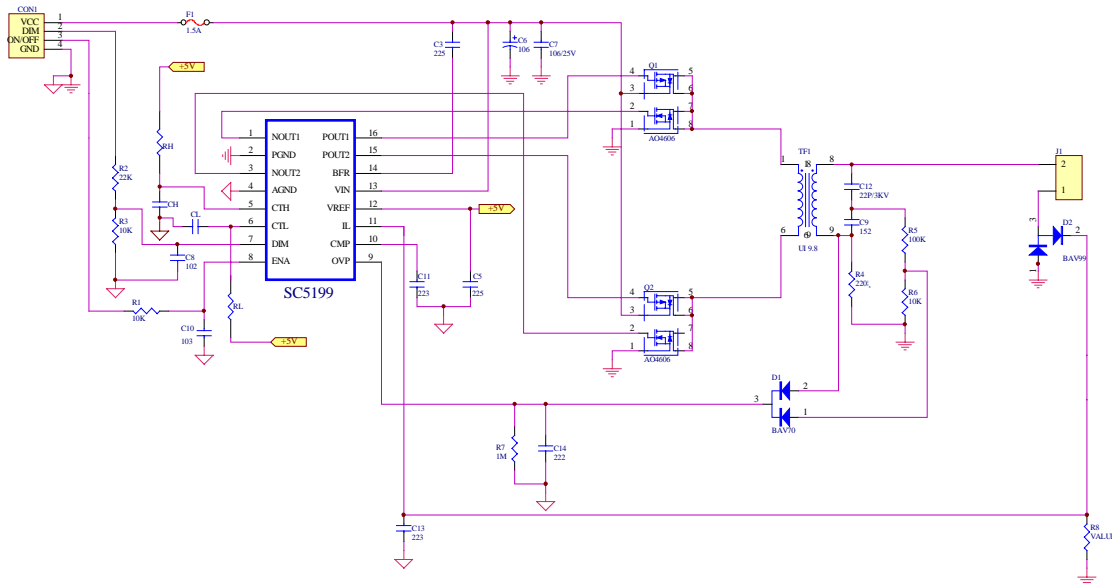
- 高效能、单级式电源转换器
- 宽输入电压范围
- 外围器件少
- 基准电压精度高 2%
- 增强型 PWM 全桥电路架构
- 兼容半桥、推挽、单端工作模式
- 定频工作模式
- 直接驱动 P-MOS
- 软启动功能
- 支持压电变压器
- 内置开路、过压、过流异常保护电路
- 16-pin SOP 或 SSOP 封装

### 功能简介

SC5199 采用增强型脉宽调制 (APWM) 全桥输出架构, 支持全桥、半桥、推挽等多种谐振型变换架构, 针对新一代 LCD 背光电源的要求在 IC 中内置了多种保护电路, 具有转化效率高、可靠性高; 整机电路方案简单、性价比高的优点。

工作频率针对 CCFL 和变压器不同可在 30—150KHZ 之间选取。

可广泛用于笔记型电脑、液晶监视器、液晶电视、移动式 DVD, 车载导航系统等 (典型应用电路如下)。



SC5199 1Lamp Full-Bridge Demo Schematics



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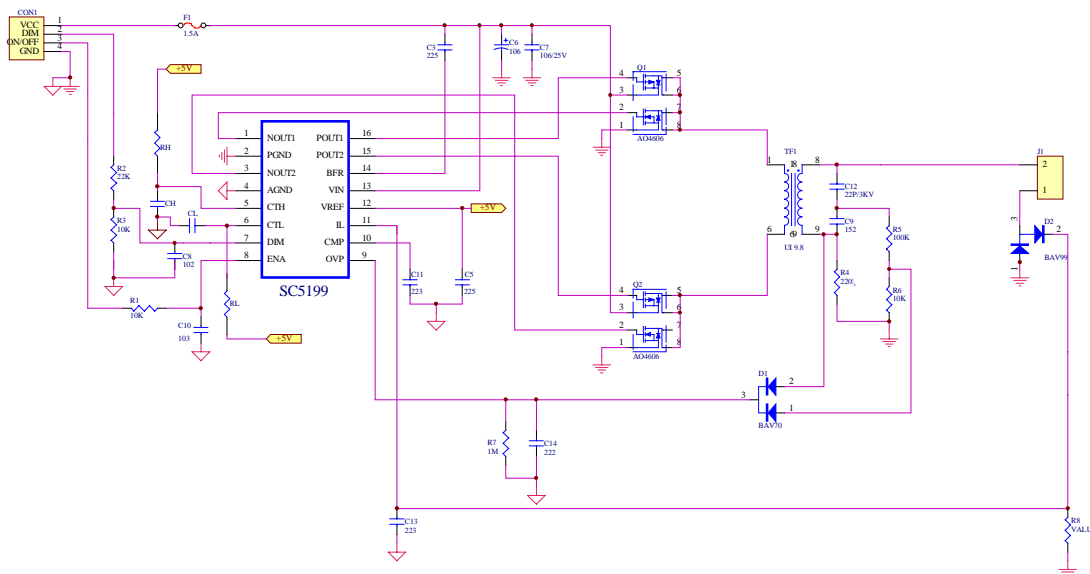
## LCD Backlight Inverter Driver IC

### Features

- High-efficiency, Single-Stage Power Conversion
- Wide Input Voltage Range
- Reduces Number of Required External Components
- Precision Voltage Reference Trimmed to 2%
- Advanced PWM Full-Bridge Topology
- Half-bridge & Push-Pull Mode Compatible
- Constant frequency operation
- P-MOS Direct Drive
- Soft-Start
- Support Piezoelectric Transformer
- Built-in open-load protection, over-voltage protection and over-current protection
- 16-pin SOP & SSOP

### Description

The SC5199 provides all the control functions for a series parallel resonant converter as well as a Advanced Pulse Width Modulation (APWM) controller to develop a supply voltage. Typical operating frequency range is between 30kHz and 150kHz, depending on the CCFL and the transformer's characteristics. The SC5199 uses a unique APWM Full-Bridge structure control for wide-range load regulation.



SC5199 1Lamp Full-Bridge Demo Schematics