

GENERAL DESCRIPTION

The TCS5201 is a step-up converter designed for driving up to 7 series white LEDs from a single cell Lithium Ion battery. The TCS5201 uses current mode, fixed frequency architecture to regulate an LED current, which is measured through an external current sense resistor. Its low 200mV feedback voltage reduces power loss and improves efficiency. The TCS5201 includes under-voltage lockout, current limiting and thermal overload protection preventing damage in the event of an output overload. Optimized operation frequency can meet the requirement of small LC filters value and low operation current with high efficiency. Internal soft start function can reduce the inrush current. Tiny package type provide the best solution for PCB space saving and total BOM cost.

FFEATURES

- High Efficiency: Up to 90%
- 1.2MHz Constant Frequency Operation
- Integrated internal Power MOSFET
- Drives up to 7 Series WLEDs
- Low 200mV Feedback Voltage
- Soft-start/Dimming with wide Frequency Range
- UVLO, Thermal Shutdown
- Internal Current limit
- Over Voltage Protection
- Small LC Filter
- Minimize the External Component
- <math><1\mu A</math> Shutdown Current
- Tiny TSOT23-6/SOT23-6 Package

APPLICATIONS

- Camera Flash White LED
- Mobile Phone, Smart Phone LED Backlight
- PDA LED Backlight
- Digital Still Cameras
- Camcorder

TYPICAL APPLICATION

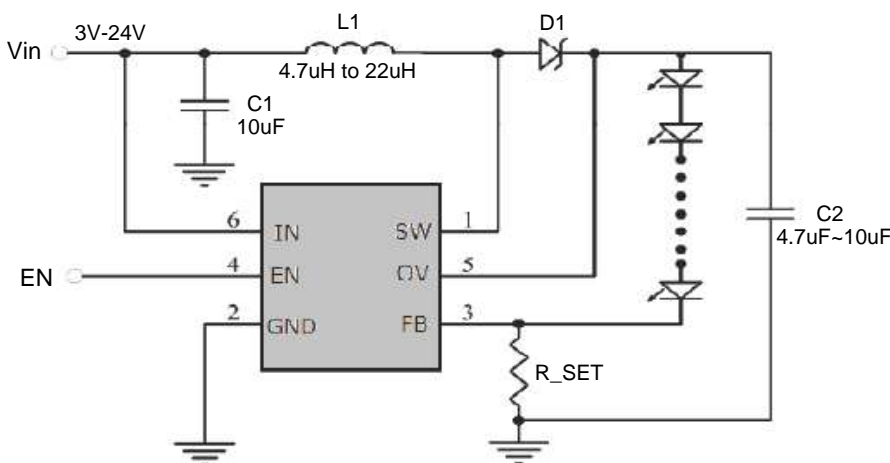


Figure 1. Typical Application Circuit