FEATURES

- Input Voltage Range: 2.5V to 5.5V
- High Efficiency: Up to 90%
- 1.2MHz Constant Frequency Operation
- Integrated 150mΩ Power MOSFET
- 30V Output Over Voltage Protection
- TCS5202C:200mV Typical V_{FB} Voltage
- EN Dimming with wide PWM Frequency Range: 1kHz to 200kHz
- UVLO, Thermal Shutdown
- Internal Current limit
- Minimize the External Component
- <1μA Shutdown Current
- SOT23-6 Package

APPLICATIONS

- Mobile Phone, Smart Phone LED Backlight
- PAD Display LED Backlighting
- Portable Media Players

GENERAL DESCRIPTION

The TCS5202C are boost converters designed for white LED driver with 30V OVP from a single cell Li-ion battery. The TCS5202C use current mode, fixed frequency architecture to regulate LED strings current, which is set with an external current sense resistor. Its low 200mV for TCS5202C, 250mV typical feedback voltage with EN/PWM Pulling High reduces power loss and improves efficiency.

The TCS5202C include 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. SOT23-6 package type provides the best solution for PCB space saving and total BOM cost.

TYPICAL APPILCATIONS

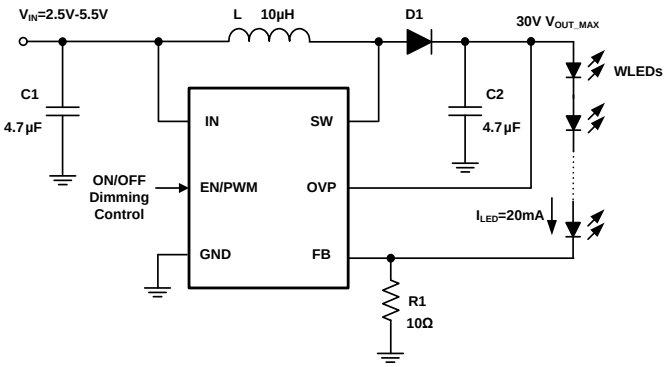

Figure 1. TCS5202C Basic Application Circuit