



Small Package, High Performance Asynchronous Boost for 10W LED Driver

General Description

The KF9909A is a step-up DC/DC converter specifically designed for driving white LEDs with a constant current. The internal MOSFET can support up to 10 White LEDs for backlighting and OLED power application, and the internal soft start function can reduce the inrush current. The KF9909A uses current mode, fixed frequency of approximately 1.0MHz architecture to regulate the LED current through an external current sense resistor. The low feedback voltage of 300mV can minimize power dissipation.

Other features include current limit protection, thermal shutdown protection, under-voltage lockout (UVLO), and over-voltage function.

The KF9909A is available in space saving SOT-23-6L and DFN-8L (2mm x 2mm) packages.

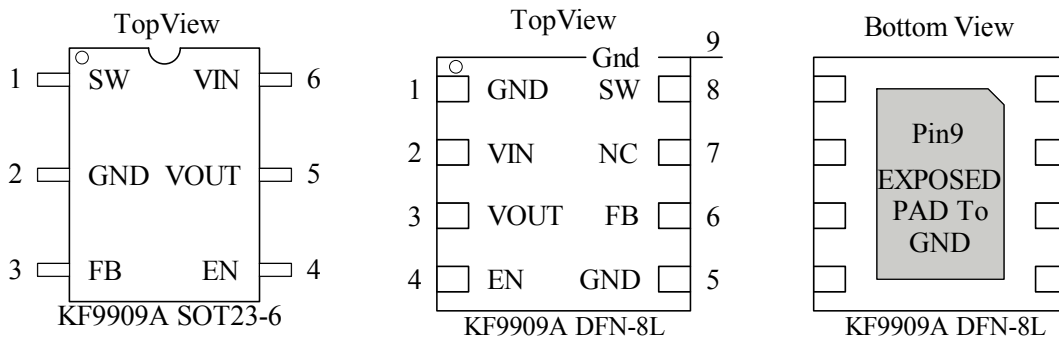
Features

- VIN Operating Range : 2.5V to 5.5V
- Internal Power N-MOSFET Switch
- Wide Range for PWM Dimming (100Hz to 200kHz)
- 1.0MHz Switch Frequency
- 300mV Feedback Voltage
- 1.2A SW Current Limit
- Minimize the External Component Counts
- Internal Compensation
- Over Voltage Protection

Applications

- Cellular Phones and Digital Cameras
- PDAs and Smart Phones and MP3 and OLED
- Portable Instruments
- High-light LED Flash

Package



Typical Application Circuit

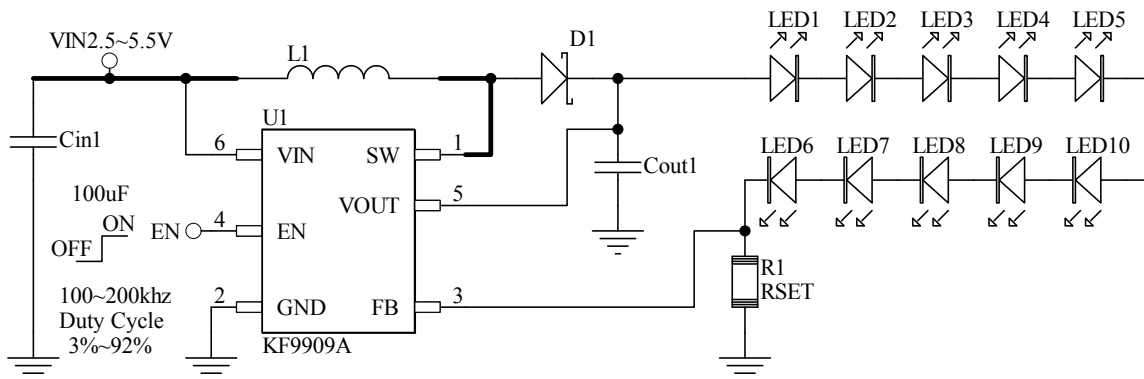


Figure 1. Basic Application Circuit with KF9909A