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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Features

- Buck-boost DC-DC converter
- Drives one power LED up to 1 A in Flash mode
- Drives one power LED up to 800 mA in continuous mode
- LED temperature protection and output current control
- 1.8 MHz (typ.) fixed frequency PWM
- Synchronous rectification
- High efficiency across the total input voltage range
- Peak inductor limited to 2.3 A (typ.)
- LED disconnected from the battery in shutdown mode
- NTC LED temperature protection
- Overvoltage protection: 5.3 V
- Short-circuit protection and overtemperature protection
- ULVLO function
- 1 μ A max. shutdown current
- RoHS compliant

Description

The STEVAL-TLL009V1 demonstration board demonstrates the performance of the STCF07, a dedicated and size-optimized solution for driving a power LED.

This device is a buck-boost converter which guarantees proper LED current control over all possible battery voltage and LED forward voltage conditions.

The output current control ensures good current regulation over the forward voltage spread characteristics of high-brightness LEDs.

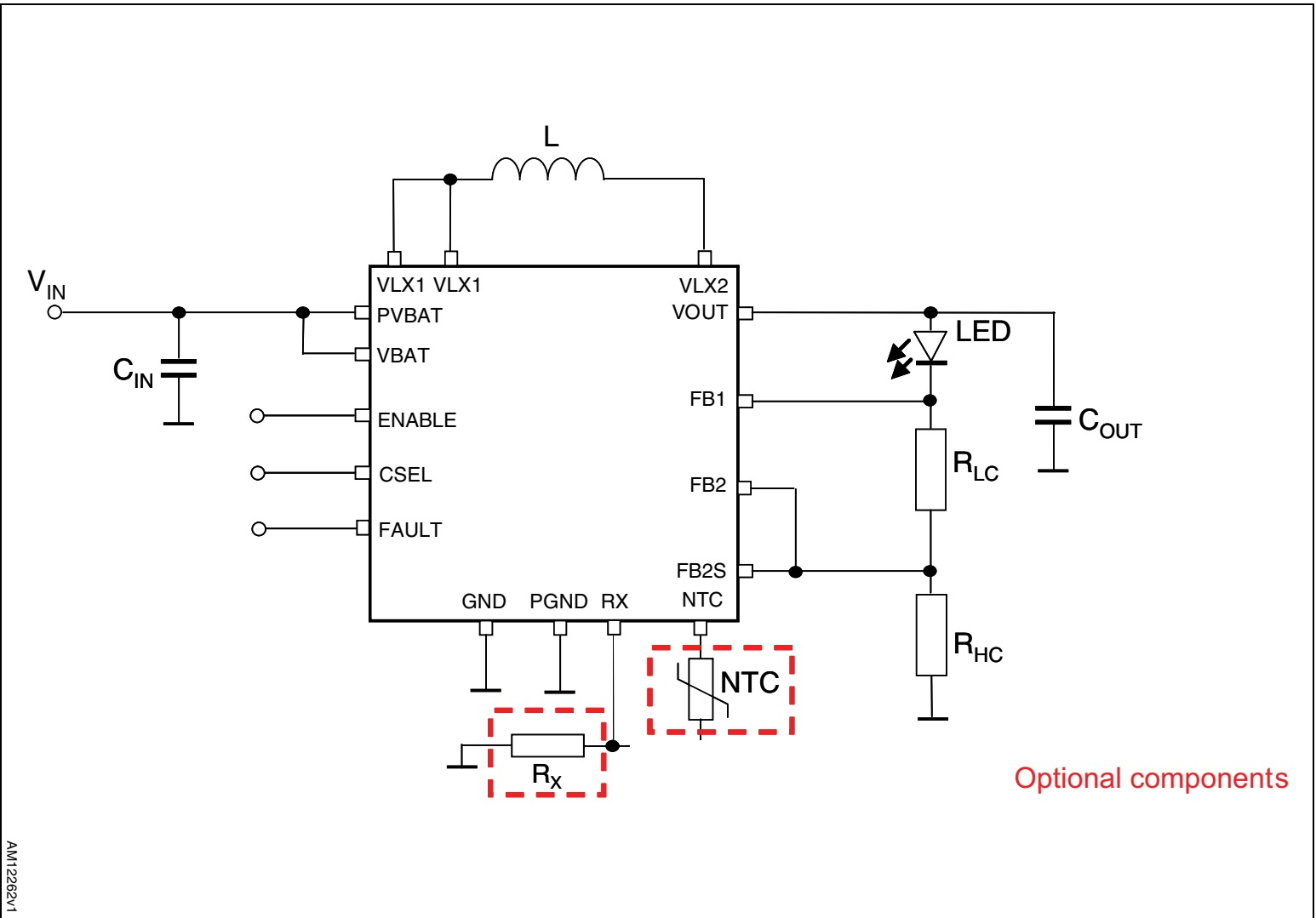


The device also includes various functions to protect the chip and the power LEDs, such as an optional external NTC that is supported to protect the LEDs against overheating.

It is possible to separately program the current intensity in HIGH and LOW mode using the SEL pin.

1 Schematic diagram

Figure 1. Schematic diagram



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
08-Jun-2012	1	Initial release.

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