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3 A HB LED driver with dimming function based on the LED2000 in an SO-8 Batwing package

Data brief



Description

The STEVAL-ILL051V1 evaluation board provides a platform for evaluating the LED2000, an 850 kHz fixed switching frequency monolithic step-down DC-DC converter designed to operate as precise constant current source with an adjustable current capability up to 3 A DC.

The embedded PWM dimming circuitry features LED brightness control. The regulated output current is set by connecting a sensing resistor to the feedback pin.

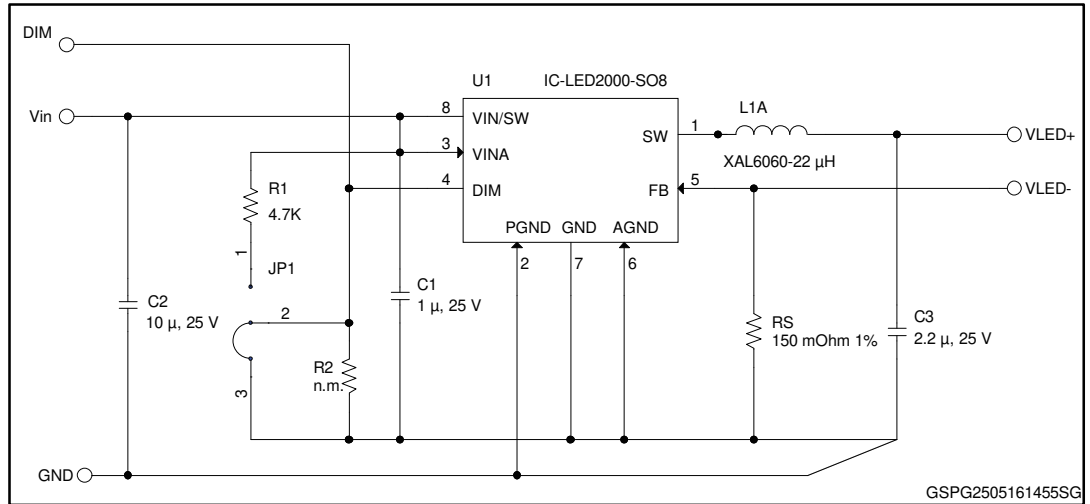
Application size is minimized thanks to the high switching frequency and ceramic output capacitor compatibility.

The device is fully protected against overheating, overcurrent and output short-circuit.

Features

- 3.0 V to 18 V operating input voltage range
- 850 kHz fixed switching frequency
- 100 mV (typ) current sense voltage drop
- PWM dimming
- $\pm 7\%$ output current accuracy
- Synchronous rectification
- Internal current limiting
- Thermal shutdown
- RoHS compliant

1 Schematic diagram

Figure 1: STEVAL-ILL051V1 circuit schematic

2 Revision history

Table 1: Document revision history

Date	Version	Changes
16-Apr-2013	1	Initial release.
26-May-2016	2	Updated: Figure 1 STEVAL-ILL051V1 circuit schematic.

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