

LED driver based on the LED6001

Data brief



Features

- Wide DC input voltage: 6 V-24 V
- Single channel, 350mA constant-current output with PWM brightness control
- Up to 10 high-brightness white LEDs (40 V OVP threshold)
- Selectable boost or SEPIC converter topology
- Up to 92% efficiency (boost converter)
- Onboard photo-transistor for ambient light switch function

- LED temperature protection through analog dimming control
- RoHS compliant

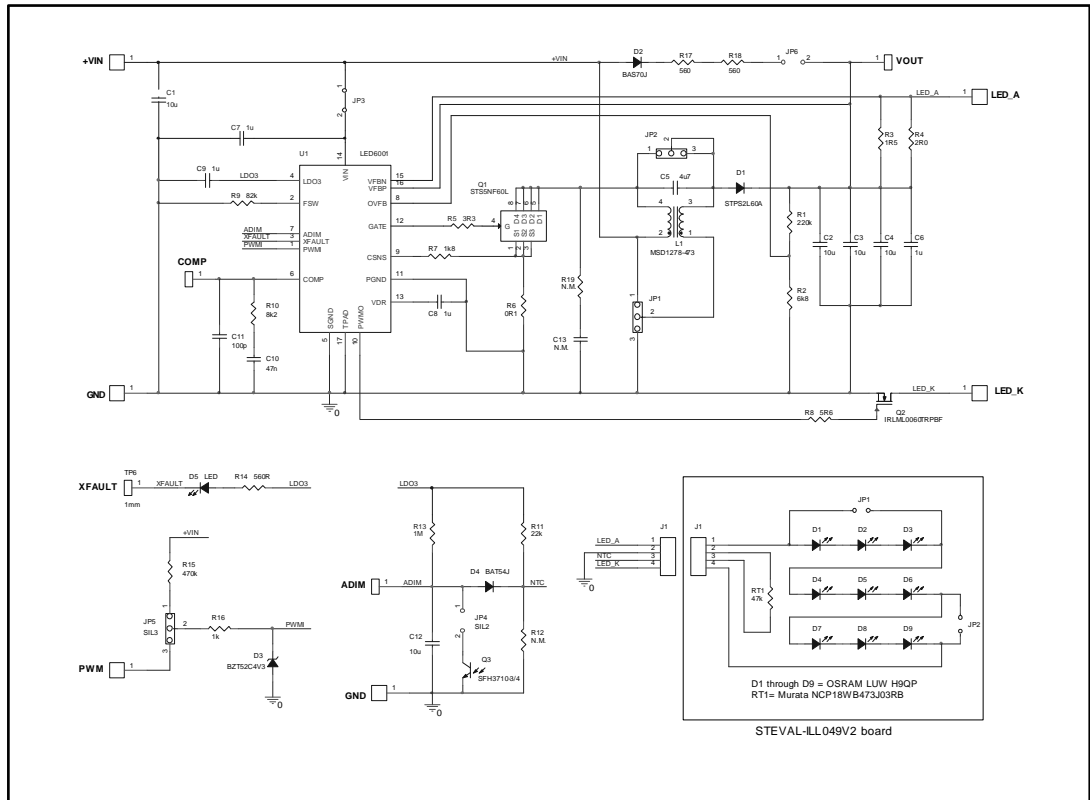
Description

The STEVAL-ILL049V1 is an adapter board designed to provide an application example of compact LED driver using the new LED6001 chip. The board is equipped with a single-channel, constant-current LED driver operating with both boost and SEPIC topologies. The brightness of the LED string connected to its output can be controlled through a PWM signal (0%-100% dimming) or a control voltage (10:1 analog dimming). Open LED, feedback disconnection, LED over-current and output-to-ground short-circuit (SEPIC only) faults are detected and managed.

The board has been designed to provide a real-estate solution example for all the applications involving several LEDs arranged as a single string (e.g. off-grid street lighting, advertisement panels, signs, gaming, etc.).

1 Schematic diagram

Figure 1: STEVAL-ILL049V1 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Revision	Changes
25-Nov-2013	1	Initial release.