

1.4A Boost for White LED Driver

Features

- 2.5V to 5.5V operating input voltage range
- Drives up to 8 series White LEDs
- 1.0MHz Fixed Switching Frequency
- Wide range for PWM dimming (200Hz to 200KHz)
- Internal 1.4A switching current limit
- Over Voltage Protection (OVP)
- Internal Soft-start Function
- Current limit and Thermal shutdown protection
- Under voltage Lockout

Description

The GR5401 is a high frequency, asynchronous boost converter. The internal MOSFET can support up to 8 White LEDs for backlighting and OLED power application, and the internal soft start function can reduce the inrush current.

The GR5401 uses current mode, 1.0MHz fixed frequency architecture to regulate the LED current, which is set through an external current sense resistor. Its low 300mV feedback voltage reduces power loss and improves efficiency. The OVP pin monitors the output voltage and turns off the converter if an over-voltage condition is present due to an open circuit condition. The GR5401 includes under-voltage lockout, current limiting and thermal shutdown protection preventing damage in the event of an output overload. The driver is available in small 6-pin SOT26 & TSOT26 packages.

APPLICATIONS

Cellular Phones

Digital Cameras

Tablet PC and Handheld Computers

PDA, DVD and GPS Receivers

Portable Instruments

Application Circuit

