Small Package, High Performance, Asynchronies Boost for WLED Driver

DESCRIPTION

The EUP2586 is a high frequency, asynchronous boost converter designed for driving white LED arrays. With integrated 0.19Ω power switch and 2A current limit, the EUP2586 provides enough driving capability for 7″~10″ LCD backlighting(13 strings of 3 or 4 LEDs each). The device uses current mode, fixed frequency architecture to regulate the LED current, which is measured through an external current sense resistor. Its low 200mV feedback voltage reduces power loss and improves efficiency.

With the built-in over-voltage protection function (OVP), the SW pin monitors the output voltage and turn off the device if an over-voltage condition is present due to an open circuit condition. Other features include soft start, over-current limiting, thermal protection and under-voltage lockout.

The EUP2586 is available in the tiny TSOT23-5 package to provide the best solution for PCB space saving and total BOM cost.

FEATURES

- 2.6V to 5.5V Input Range
- Internal 0.19Ω, 18V MOSFET Switch
- High Efficiency Up to 93%
- Lower Surface Temperature at ILED=180mA
- 1MHz Switching Frequency
- 2A Current Limit
- Open LED Overvoltage Protection
- Internal Soft-Start
- PWM and DC Dimming Control
- Available in TSOT23-5 Package
- RoHS Compliant and 100% Lead (Pb)-Free Halogen-Free

APPLICATIONS

- 7″ to 10″ LCD Panels
- MID Backlighting
- Netbook Backlighting
- Portable Media Players
- GPS Navigation Systems

Typical Application Circuit

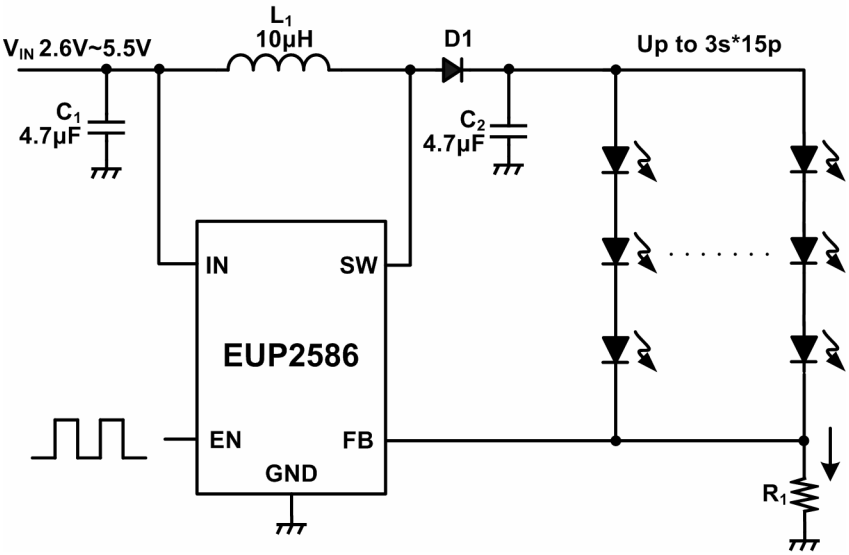


Figure 1. EUP2586 PWM Dimming Application for White LED Driver