



1.5A Synchronous Boost LED Flash Driver with I²C Compatible Interface

DESCRIPTION

The EUP2475 is a 4MHz fixed frequency, current mode synchronous boost converter. The device is designed to operate 1.5A constant current driver for flash white LED applications.

An industry-standard I²C serial digital input is used to enable, disable and set the current for flash LED. The EUP2475 has two logic inputs including a hardware Flash Enable (STROBE) and a Flash Interrupt input (TX/TORCH) designed to interrupt the flash pulse during high battery current conditions. In flash mode, the LED current source provides 16 target current levels from 93.75mA to 1.5A. And also tin torch mode, the programmable current ranges from 48.4mA to 375mA.

An over voltage protection feature keeps the output voltage below the OVP threshold in the case of an open LED and an output short circuit protection limits the output current during an output short to GND.

EUP2475 is available in a small 9-bump (1.61mm ×1.61mm) WSCP package.

FEATUES

- 2.5V to 5.5V Input Supply Range
- Up to 1.5A Regulated Output Current
- Up to 85% Efficiency
- 4 MHz Fixed Switching Frequency
- I²C-Compatible Interface
 - 400kHz Serial Transfer Rate
 - Flash/Torch/Indicator/Standby
 - Programmable Flash LED Current from 93mA to 1.5A
 - Programmable Torch LED Current from 48.4mA to 375mA
 - Programmable Flash Time-Out Timer
 - Programmable Current Ramp Timer
 - Programmable Input Voltage Flash Monitor (IVFM)
- True Load Disconnect
- Input Current Limit
- Output Over-Voltage, Short Circuit and Over-Temperature Protection
- 1.61mm×1.61mm WSCP-9 Package
- RoHS Compliant and 100% Lead (Pb)-Free Halogen-Free

APPLICATIONS

- LED Photo Flash/Movie
- Smartphone
- Tablets

Typical Application Circuit

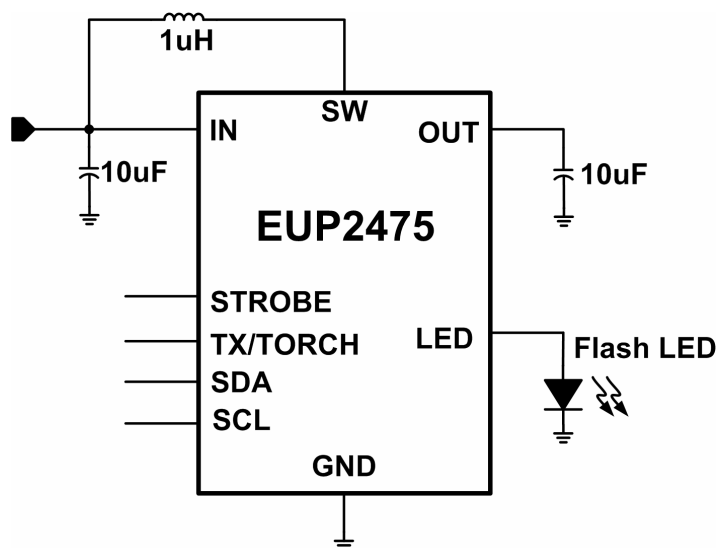


Figure 1. Typical Application