

1.5A Synchronous Boost LED Flash Driver with I²C Compatible Interface

DESCRIPTION

The EUP2468 is a 2MHz or 4MHz fixed frequency, current mode synchronous boost converter with two current sources. The device is designed to operate 1.5A constant current driver for single channel.

An industry-standard I²C serial digital input is used to enable, disable and set the current for flash LED. The EUP2468 has four logic inputs including a hardware Flash Enable (STROBE), a Flash Interrupt input (TX), a hardware Torch Enable (TORCH/TEMP), Active High Enable (HWEN). In flash mode, the LED current source provides target current levels from 21.8mA to 1.5A. And also in torch mode, the programmable current ranges from 1.954mA to 358mA.

The EUP2468 contains several protect functions in abnormal conditions such as: Overvoltage Protection, Current Limit, NTC Monitoring Protection, Undervoltage Lockout Protection, Thermal Shutdown Protection and LED/OUT short Protection. Built-in circuitry prevents excessive inrush current during start-up. The chip's quiescent current is less than 1.0μA in shutdown mode.

EUP2468 is available in a small 12-bump WCSP package.

FEATUES

- 2.5V to 5.5V Input Supply Range
- Up to 85% Efficiency
- 2MHz or 4MHz Fixed Switching Frequency
- I²C-Compatible Interface
 - 400-kHz Serial Transfer Rate
 - Flash/Torch/IR/Standby
 - Programmable Flash LED Current from 21.8mA to 1.5A
 - Programmable Torch LED Current from 1.954mA to 358mA
 - 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
- NTC Monitoring
- 0.4mm Pitch, 12-Bump WCSP
- RoHS Compliant and 100% Lead(Pb)-Free Halogen-Free

APPLICATIONS

- LED Photo Flash/Movie
- Smart phone
- Tablets

Typical Application Circuit

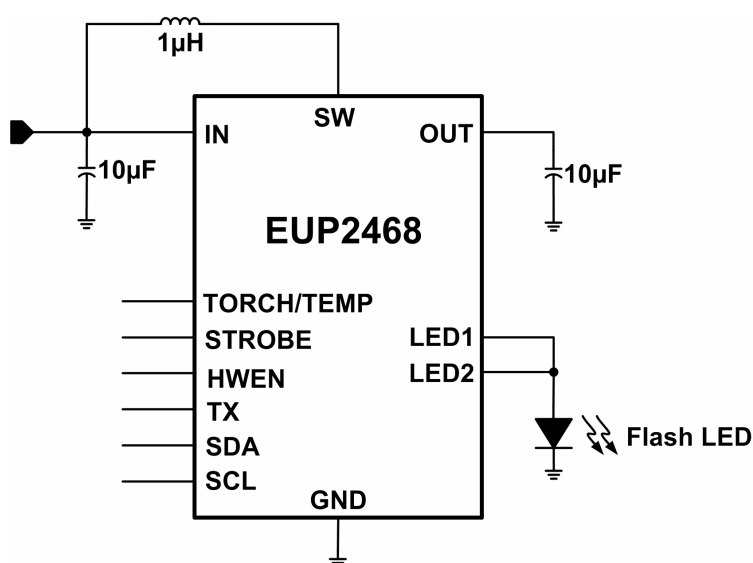


Figure 1. Typical Application