

Flash LED Driver with Programmable 1.5A Current Source

Features

- High efficiency synchronous boost converter with 2MHz/4MHz switching frequency option
- I²C interface programming and hardware STROBE/TORCH control
- Single-channel programmable current source
 - ▶ Flash/Torch/IR modes
 - Flash: Up to 1.5A
 - Torch: Up to 0.375A
 - ▶ Programmable ramp shape and time control
 - ▶ Three input low voltage protection modes
 - ▶ Flash time-out protection
 - ▶ LED cathode ground connection for improved thermal dissipation
- LED open/short protection
- I²C fault read back

Brief Description

KTD2681 is the ideal power solution for high-power flash LEDs. It includes a highly integrated synchronous boost converter and two current sources, providing a very small total solution in portable application. It has both I²C interface and hardware STROBE/TORCH pins for maximum control flexibility. The integrated current source on/off and current settings in Flash/Torch/IR modes can be programmed by the I²C interface. It also has three selectable input low voltage protection modes to prevent a system reset under low battery condition.

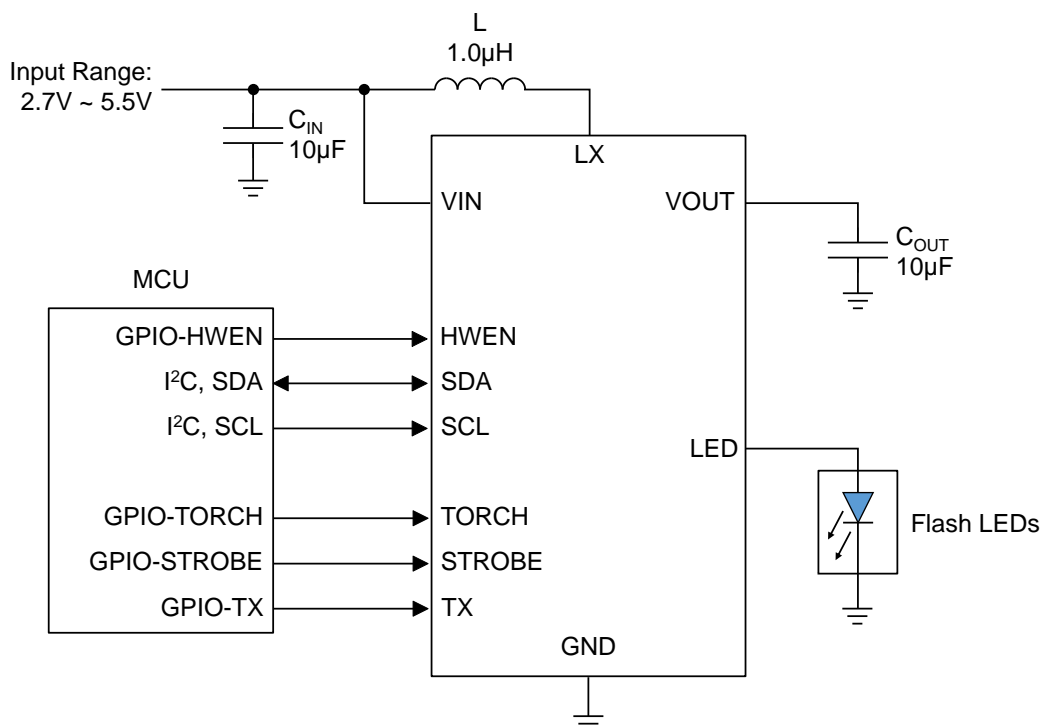
Various protection features are integrated into KTD2681, including cycle-by-cycle input current limit protection, output over-voltage protection, LED fault (open or short) protection, flash timeout protection and thermal shutdown protection.

KTD2681 is available in a RoHS and Green 12-ball 1.30mm x 1.57mm WLCSP package with 0.4mm pitch.

Applications

- Smartphones and Tablets Camera Flash
- Digital Cameras

Typical Application



Ordering Information

Part Number	Marking ¹	Operating Temperature	Package
KTD2681EUR-TR	IWYYZZ	-40°C to +85°C	WLCSP-12, 1.30mm x 1.57mm

1. "XXYYZZ" is the top mark, date code and assembly code respectively.

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