

SGM37891

Single, Inductorless LED Flash Driver with Torch Mode

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 Datasheet

 Sample

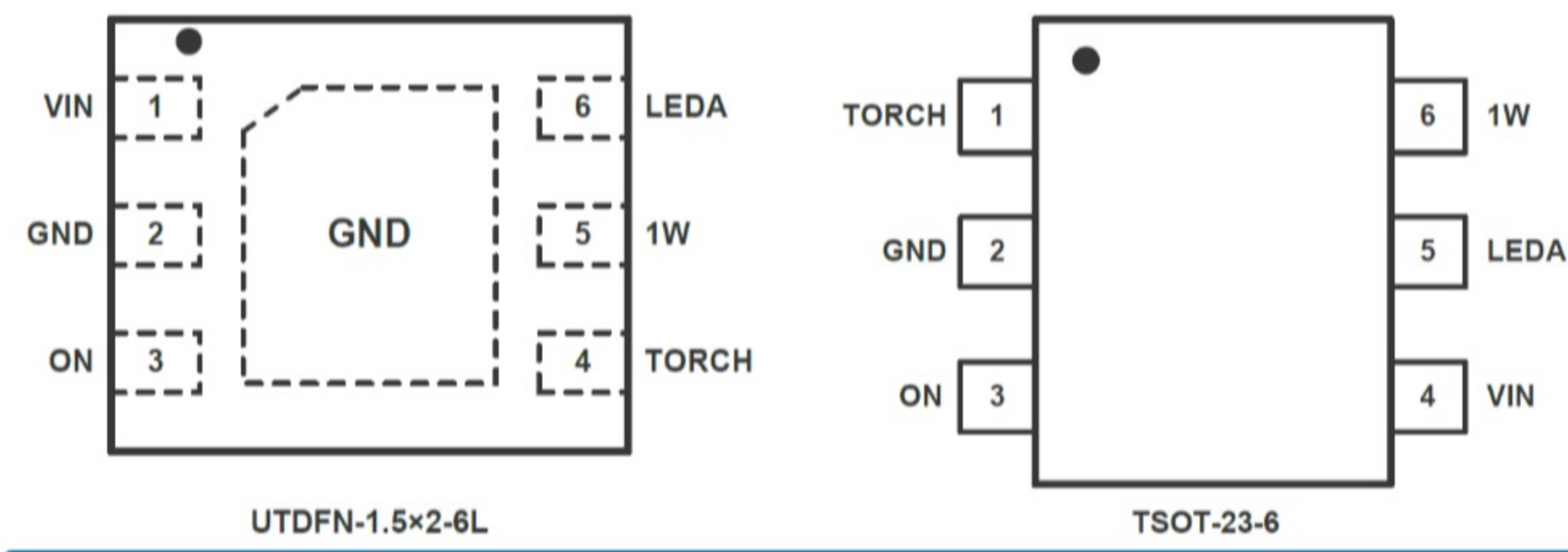
GENERAL DESCRIPTION

SGM37891 is a single-channel LED flash driver, which includes a controlled constant current source with a maximum output of 720mA (SGM37891A supports up to 1240mA) and necessary protection and control circuits. SGM37891 is based on the NMOSFET current control structure, with the new low forward voltage drop LED, in the platform voltage range of the lithium rechargeable battery, there is no need for a booster circuit to maintain a constant current, which reduces system costs and avoids switch electromagnetic interference. Its internal constant current source structure allows the negative electrode of the LED to be grounded, which is good for heat dissipation .

SGM37891 sets the output current according to the number of input pulses. The flash mode limits the maximum continuous output time through the flash timeout protection timer (650ms, typical value), thereby preventing the LED lamp beads from overheating. During this process, if the ON pin has a low pulse (50μs, typical value), the internal timer of the chip will be reset. When the power supply voltage is lower than 3.45V or the chip temperature drops. Slow on and slow off when output in torch mode.

The SGM37891 is available in UTDFN-1.5×2-6L and TSOT-23-6 green packages, and the rated operating temperature range is -40 °C to +85 °C .

PIN CONFIGURATIONS



FEATURES

- Input Supply Voltage Range: 2.7V to 5.5V
- Maximum Flash Drive Current :
720mA (SGM37891)
1240mA (SGM37891A)
- Flash overtime protection time: 650ms (typical value)
- Flash timeout protection timer can be reset flexibly to better support continuous shooting applications
- 6-level dimming (SGM37891), 8-level dimming (SGM37891A)
- The ratio of flash mode to torch mode drive current is about 4:1
- Slow on and slow off in torch mode
- Collision Avoidance Monitoring
- Sequentially scales down flash drive current (100%, 66%, 33%, 0%) under low supply voltage and over temperature conditions
- Green UTDFN-1.5×2-6L and TSOT-23-6 packages

APPLICATIONS

smartphone
tablet
web camera

ORDERING INFORMATION

SGM37891YTN6G/TR	Production	TSOT-23-6	6	Y	-40°C to +85°C	Samples
SGM37891YUDT6G/TR	Production	UTDFN-1.5×2-6L	6	Y	-40°C to +85°C	Samples



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