



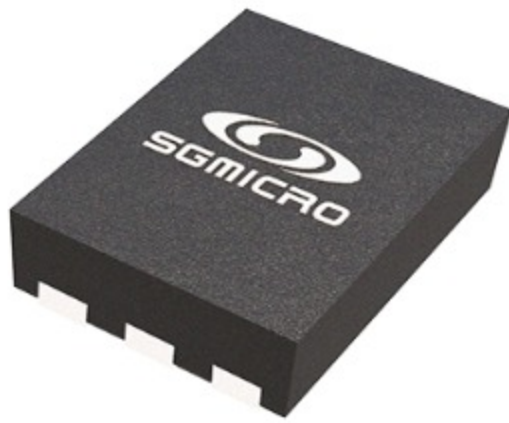
SGM37892A

Single-channel, inductorless LED flash driver with flashlight mode

Previous

Next

Return list



Single-channel, inductorless LED flash driver with flashlight mode



Datasheet



Sample

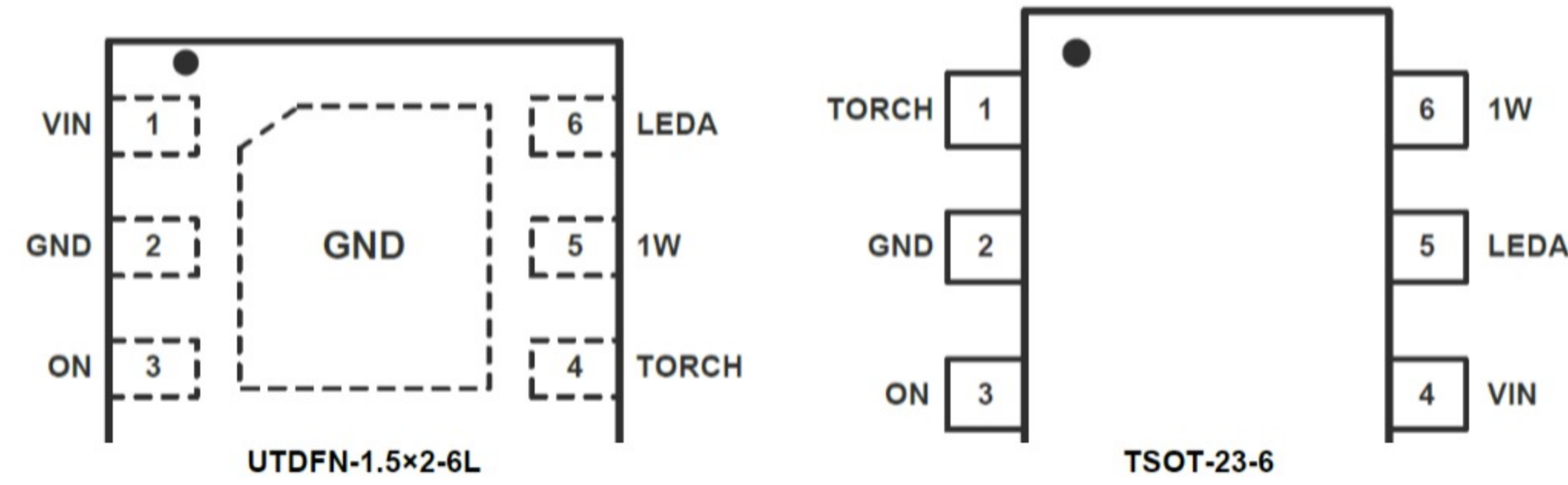
GENERAL DESCRIPTION

SGM37892 is a single-channel LED flash driver, which includes a controlled constant current source with a maximum output of 720mA (SGM37892A supports 1240mA) and necessary protection and control circuits. SGM37892 is based on the NMOSFET current control structure and cooperates with the new low forward voltage drop LED. It does not need to be equipped with a boost circuit to maintain a constant current within the platform voltage range of lithium rechargeable batteries. This reduces system costs and avoids switching electromagnetic interference. Its internal constant current source structure allows the negative electrode of the LED to be grounded, which is beneficial to heat dissipation.

SGM37892 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) to prevent the LED lamp beads from overheating. During this process, if a low pulse (50μs, typical value) occurs on the ON pin, the chip's internal timer will be reset. When the power supply voltage is lower than 3.25V or the chip temperature is higher than 165 °C , the SGM37892 automatically reduces the drive current proportionally until the power supply voltage stabilizes or the chip temperature drops back.

SGM37892 is available in UTDFN-1.5×2-6L and TSOT-23-6 green packages, with a rated operating temperature range of -40 °C to +85 °C .

PIN CONFIGURATIONS



FEATURES

- Input supply voltage range: 2.7V to 5.5V
- Maximum flash drive current:
 - 720mA (SGM37892)
 - 1240mA (SGM37892A)
- Flash timeout protection time: 650ms (typical value)
- The flash timeout protection timer can be flexibly reset to better support continuous shooting applications.
- 6-level dimming (SGM37892), 8-level dimming (SGM37892A)
- Collision avoidance monitoring
- Reduce the flash drive current proportionally (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

Part Number	Status	Package	Pins	Pb-Free	Temp Range	
SGM37892AYTN6G/TR	Production	TSOT-23-6	6	Y	-40°C to +85°C	Samples
SGM37892AYUDT6G/TR	Production	UTDFN-1.5×2-6L	6	Y	-40°C to +85°C	Samples



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