

FEATURES

- High Efficiency: Up to 96%
- 1.5MHz Constant Switching Frequency
- 700mA Available Load Current
- 2.5V to 6.5V Input Voltage Range:
- Output Voltage as low as 0.6V
- 100% Duty Cycle In Dropout
- Current Mode Control
- Short Circuit Protection
- Thermal Fault Protection
- $1\mu\text{A}$ Shutdown Current
- Space Saving 5-pin TSOT23 Package

APPLICATIONS

- Cellular & Smart Phones
- Microprocessors and DSP Core Supplies
- PDAs & MP3 Player
- Digital Still and Video Cameras
- Portable instruments

GENERAL DESCRIPTION

The AS1301 is a 1.5MHz constant frequency current mode PWM step-down converter. The device integrates a main switch and a synchronous rectifier for high efficiency without an external Schottky diode. It is ideal for powering portable equipment that runs from a single cell Lithium-Ion (Li+) battery. The AS1301 can supply 700mA of load current from a 2.5V to 6.5V input voltage. The output voltage for the AS1301-adj can be regulated as low as 0.6V, while the output voltage of the AS1301-1.8 is fixed at 1.8V. The AS1301 can also run at 100% duty cycle for low dropout applications.

The AS1301 is available in a low profile (1mm) 5-pin, TSOT23 package.

EV1301-1.0 EVALUATION BOARD

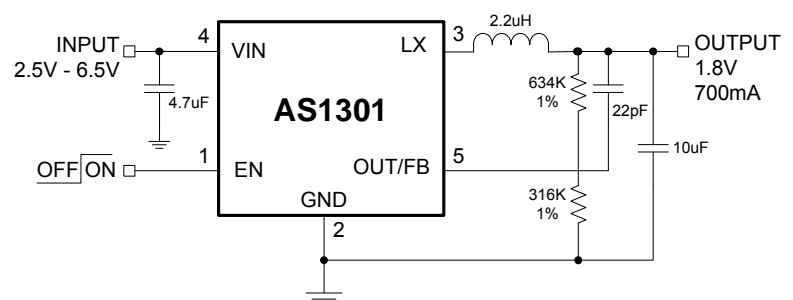


Figure1 High Efficiency Sync. Step-Down Converter