

2A, 16V 600 kHz Synchronous Step-Down Converter

GENERAL DESCRIPTION

The KF7412 is a fully integrated, high-efficiency 2A synchronous rectified step-down converter. The KF7412 operates at high efficiency over a wide output current load range.

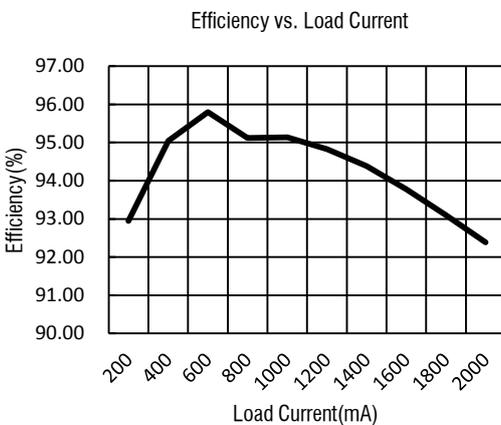
This device offers two operation modes, PWM control and PFM Mode switching control, which allows a high efficiency over the wider range of the load.

The KF7412 requires a minimum number of readily available standard external components and is available in an 6-pin SOT23 ROHS compliant package.

FEATURES

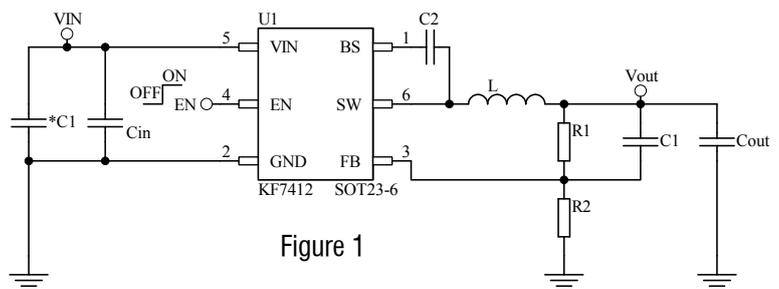
- High Efficiency: Up to 96%
- 600KHz Frequency Operation
- 2A Output Current
- No Schottky Diode Required
- 4.5V to 16V Input Voltage Range
- 0.6V Reference
- Slope Compensated Current Mode Control for Excellent Line and Load Transient Response
- Integrated internal compensation
- Stable with Low ESR Ceramic Output Capacitors
- Over Current Protection with Hiccup-Mode
- Thermal Shutdown
- Inrush Current Limit and Soft Start
- Available in SOT23-6 Package
- -40°C to +85°C Temperature Range

TYPICAL APPLICATION

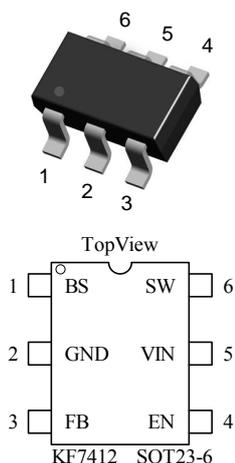


APPLICATIONS

- Distributed Power Systems
- Digital Set Top Boxes
- Flat Panel Television and Monitors
- Wireless and DSL Modems
- Notebook Computer



Package pin assignment and Function



Pin Name	Pin Number	Description
BS	1	Bootstrap. A capacitor connected between SW and BS pins is required to form a floating supply across the high-side switch driver.
GND	2	Analog ground pin.
FB	3	Adjustable version feedback input. Connect FB to the center point of the external resistor divider.
EN	4	Drive this pin to a logic-high to enable the IC. Drive to a logic-low to disable the IC and enter micro-power shutdown mode.
VIN	5	Power supply Pin
SW	6	Switching Pin