

750kHz/1.2MHz Step-up DC/DC Converter

DESCRIPTION

The EUP2624A is a high performance current mode, PWM step-up converter with pin selectable operating frequency. With an internal 1.9A, 200mΩ MOSFET, it can generate 12V at up to 500mA output current from a 5V supply. The selectable 750kHz and 1.2MHz allows smaller inductors and faster transient response. An external compensation pin gives the user greater flexibility in setting loop compensation allowing the use of low ESR Ceramic output capacitors. Soft-start is controlled with an external capacitor, which determines the input current ramp rate during start-up.

When shut down, it draws <math>< 10\mu\text{A}</math> of current and can operate down to 2.5V input supply. These features along with 1.2MHz switching frequency makes it an ideal device for portable equipment.

The EUP2624A is available in an 8-pin MSOP package. The device is specified for operation over the full -40°C to $+85^{\circ}\text{C}$ temperature range.

FEATURES

- 90% Efficiency
- 1.9A, 200mΩ Power MOSFET
- 2.5V to 5.5V Input Range
- Adjustable Output Voltage up to 12V
- 750kHz/1.2MHz Switching Frequency Selection
- Adjustable Soft-Start
- Internal Thermal Protection
- Small MSOP-8 package
- RoHS Compliant and 100% Lead (Pb)-Free

APPLICATIONS

- DSL Modems
- Set-Top Boxes
- PCMCIA Cards
- Portable Equipment
- Handheld Devices

Typical Application Circuit

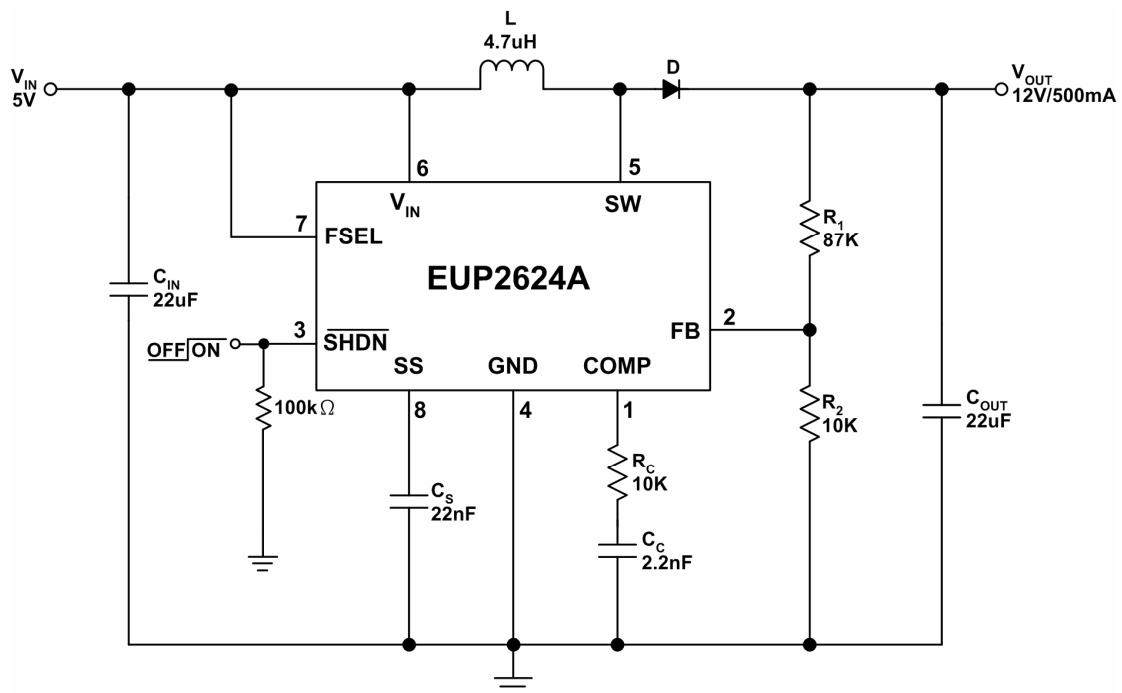


Figure 1. 5V to 12V Step-Up