

# 30V 2A 500KHz Synchronous Step-Down Regulator

## Features

- Wide 4.5V to 30V Operating Input Range
- 2A Continuous Output Current
- 500KHz Switching Frequency
- Short Protection with Hiccup-Mode
- Built-in Over Current Limit
- Built-in Over Voltage Protection
- PFM Mode for High Efficiency in Light Load
- Internal Soft-Start
- 110mΩ/70mΩ Low  $R_{DS(ON)}$  Internal Power MOSFETs
- Output Adjustable from 0.6V
- No Schottky Diode Required
- Integrated internal compensation
- Thermal Shutdown
- Available in SOT23-6 Package
- -40°C to +85°C Temperature Range

## Applications

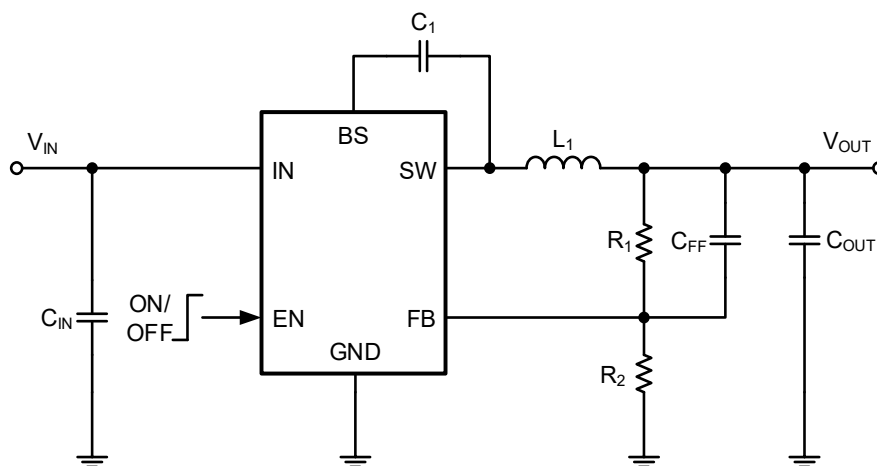
- Digital Set-top Box (STB)
- Tablet Personal Computer (Pad)
- Flat-Panel Television and Monitor
- Wi-Fi Router / AP
- Digital Video Recorder (DVR)
- Portable Media Player (PMP)
- Cable Modem / XDSL
- General Purposes

## General Description

The RY8320 is a high frequency, synchronous, rectified, step-down, switch-mode converter with internal power MOSFETs. It offers a very compact solution to provide a 2A continuous current over a wide input supply range, with excellent load and line regulation.

The RY8320 requires a minimal number of readily available, external components and is available in a space saving SOT23-6 package.

## Typical Application Circuit



Basic Application Circuit