

General Description

The TCS4489C 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 output current over a wide input supply range, with excellent load and line regulation. ECOT control operation provides very fast transient response and easy loop design as well as very tight output regulation.

The TCS4489C requires a minimal number of readily available, external components and is available in a space saving SOT23-6 package.

Features

Wide 4.5V to 17V Operating Input Range
2A Continuous Output Current
500KHz Switching Frequency
ECOT Mode Control with Fast Transient Response
Built-in Over Current Limit
Built-in Over Voltage Protection
Force-PWM Mode
Internal Soft-Start

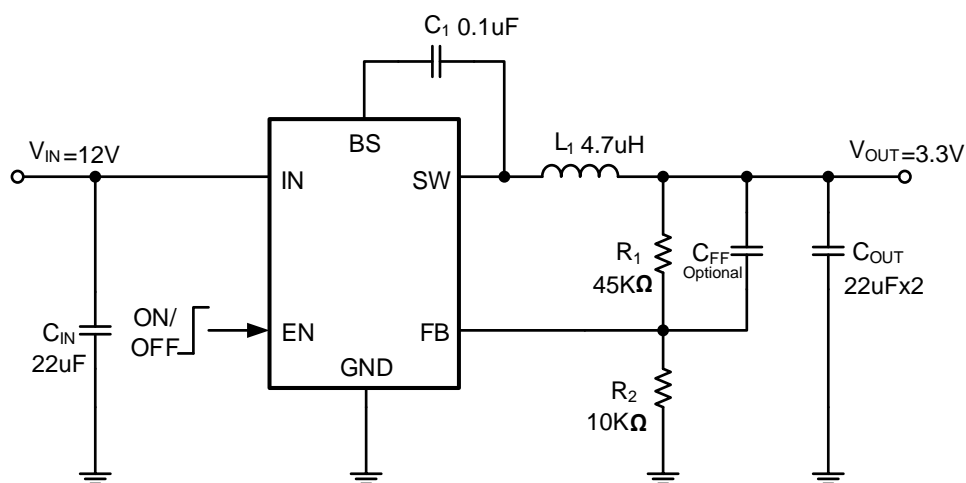
110m Ω /70m Ω Low $R_{DS(ON)}$ Internal Power MOSFETs
Output Adjustable from 0.6V
No Schottky Diode Required
Short Protection with Hiccup-Mode
Integrated internal compensation
Thermal Shutdown
Available in SOT23-6 Package
-40°C to +85°C Temperature Range

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

Typical Application Circuit



Basic Application Circuit