

4A, 21V, 500KHz Synchronous Step-Down Converter

DESCRIPTION

The EUP3485 is a 500KHz fixed frequency synchronous current mode buck regulator. The device integrates both 110mΩ high-side switch and 30mΩ low-side switch that provide 4A of continuous load current over a wide operating input voltage of 4.5V to 21V. The internal synchronous power switch increases efficiency and eliminates the need for an external Schottky diode. Current mode control provides fast transient response and cycle-by-cycle current limit.

The EUP3485 features short circuit and thermal protection circuits to increase system reliability. In shutdown mode, the supply current drops below 1μA. The EUP3485 is available in SOP-8 package with an exposed pad.

FEATURES

- 4A Continuous Output Current
- 100ns Minimum On Time
- Integrated 110mΩ High-side Switch
- Integrated 30mΩ Low-side Switch
- Wide 4.5V to 21V Operating Input Range
- Output Adjustable from 0.8V
- Fixed 500KHz Switching Frequency
- Sync from 300KHz to 2MHz External Clock
- Internal Compensation
- Internal Soft-Start
- <1μA Shutdown Current
- Thermal Shutdown and Over current Protection
- Input Under Voltage Lockout
- Available in SOP-8 (EP) Package
- RoHS Compliant and 100% Lead(Pb)-Free Halogen-Free

APPLICATIONS

- Distributed Power Systems
- Networking Systems
- Notebook Systems and I/O Power
- Flat Panel Television and Monitors
- Personal Video Recorders
- Digital Set Top Boxes

Typical Application Circuit

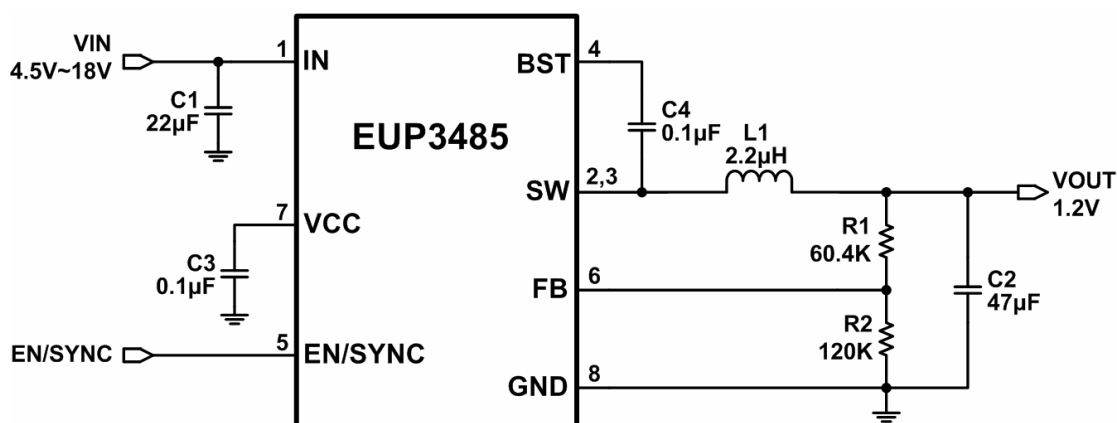


Figure 1.