

Description

The IT7833 is a low-input voltage and high-output current synchronous-buck PWM converter and integrates with all required active components. Its' operating input voltage ranges from 2.7V to 6V and output voltage ranges from VIN down to 0.8V. The switching frequency is adjustable ranging from 300kHz to 1.4MHz. High performance and externally compensation voltage error amplifier provides design flexibility and high performance under transient. In addition, it provides internal soft-start to reduce inrush-current, current-limit and thermal shutdown, preventing IC from being damaged.

Features

- 2.7V to 6V Input Voltage Range
- 3A Output Current
- Typical Quiescent Current: 0.65mA
- 300kHz to 1.4MHz Adjustable Frequency Operation
- 0.8V to VIN Adjustable Output Voltage
- 100% Duty Cycle for Lowest Dropout
- 0% Duty Cycle
- Enable Internal Pull-High
- External Compensation
- Internal Soft-Start
- Thermal Shutdown
- Current-Limit and Short-Circuit Protection
- SOP 8L-EP Package
- RoHS Compliant (100% Green Available)

Applications

- ASIC/DSP/μP/FPGA Core and I/O Voltages
- Networking and Telecommunications
- TV

Typical Applications

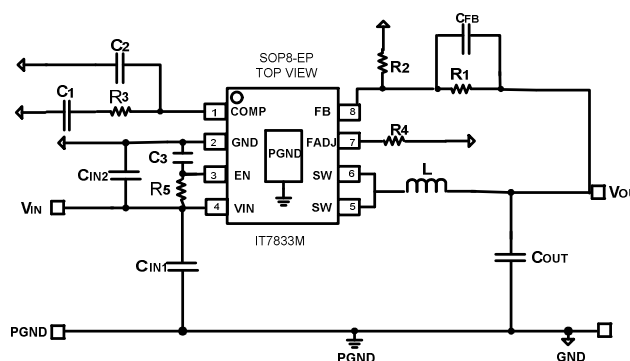


Figure 1. Typical Application Circuit

Efficiency vs. Output Current at VIN=5V

