

18V 3A 500kHz Synchronous Step-Down DC/DC Converter

DESCRIPTION

The MT3571 is a high efficiency, 3A current mode synchronous step-down DC/DC converter with a wide input voltage range from 4.7V to 18V. The device integrates high side and low side MOSFETs to achieve high efficiency conversion. The current mode architecture supports fast transient response and internal compensation. The MT3571 provides complete fault protection including input under-voltage lockout, output short circuit protection, over current protection, and thermal shutdown. The switching frequency is internally set at 500kHz. MT3571N and MT3571A have different operation modes:

- MT3571N is automatic PSM/PWM mode
- MT3571A is Forced PWM mode

To improve the light load efficiency, MT3571N has proprietary light load power saving mode (PSM) to minimize the switching loss by reducing the switching frequency. The MT3571 is available in the SOT23_6L and CPC8_6L package.

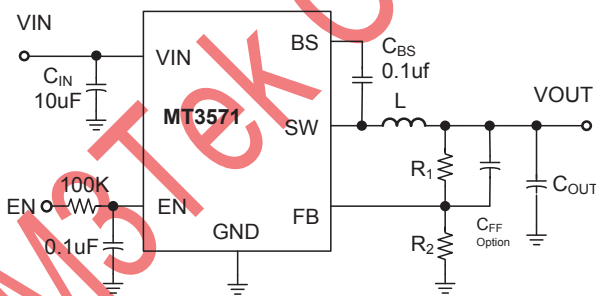
FEATURES

- Input Voltage Range from 4.7V to 18V
- Adjustable Output Voltage from 0.8V to 12V
- Support 100% Duty Cycle Operation
- 500kHz Switching Frequency
- Built-in 110mΩ/60mΩ Power Switch
- 3A Continuous Output Current
- High Efficiency up to 95%
- Internal 1msec Soft-Start
- Peak Current Mode Operation
- Over-temperature Protection
- Input Under Voltage Lockout (UVLO)
- Cycle-by-Cycle Current Limit Protection
- Over-Load and Short Circuit Protection
- Thermal Shutdown Protection
- Available in a Small SOT23_6L and CPC8_6L Package
- Pb-Free RoHS Compliant

APPLICATIONS

- Wireless and DSL Card
- Portable/Handheld Device
- STB, TV, Sound Bar, MP3 Player
- Microprocessor and DSP Core Supply

Typical Applications



Efficiency

