

**DESCRIPTION**

The MT3570/MT3570A is a high efficiency, 2A 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 MT3570/MT3570A 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. MT3570 and MT3570A have different operation modes:

- MT3570 is automatic PSM/PWM mode
- MT3570A is Forced PWM mode

To improve the light load efficiency, MT3570 has proprietary light load power saving mode (PSM) to minimize the switching loss by reducing the switching frequency. The MT3570/MT3570A is available in the SOT23\_6L package.

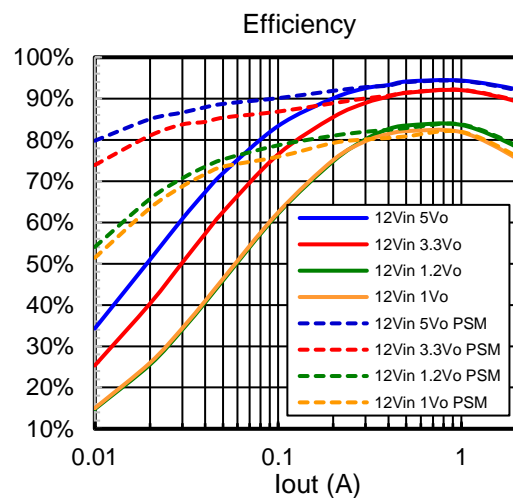
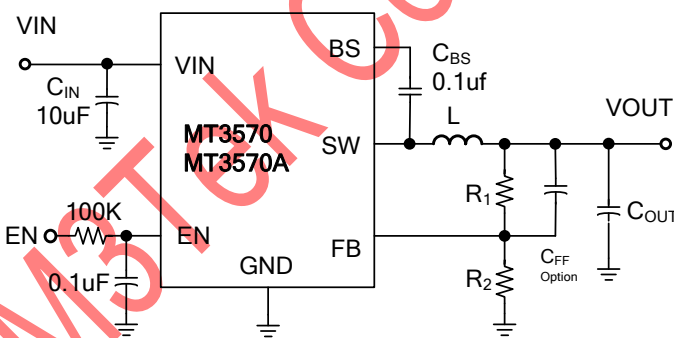
**FEATURES**

- Input Voltage Range from 4.7V to 18V
- 0.8V Feedback Voltage Accuracy
- Adjustable Output Voltage from 0.8V to 12V
- Support 100% Duty Cycle Operation
- 500kHz Switching Frequency
- Built-in 120mΩ/80mΩ Power Switch
- Continuous Output Current up to 2A
- High Efficiency up to 95%
- Internal Soft-Start
- 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 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**

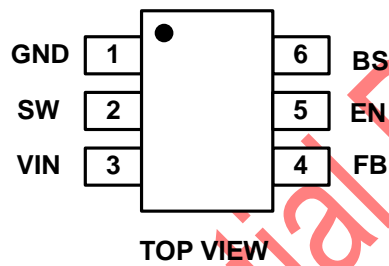


**Ordering Information**

Part No.	Marking	Temp. Range	Package	MOQ
MT3570NSCR	3570 YWWxx	-40°C ~+85°C	SOT23_6L	3000/Tape & Reel
MT3570ASCR	3570A YWWxx	-40°C ~+85°C	SOT23_6L	3000/Tape & Reel

Note: Y:Year, WW:Week, xx:Manufacture Control Code

**Pin Configuration**



**Pin Description**

Pin No.	Symbol	Description
1	GND	Ground This is the reference of the ground connection for all components in the power supply.
2	SW	Power Switches Node
3	VIN	Main Input Supply Voltage
4	FB	Voltage Feedback
5	EN	Regulator Enable Control Input, Don't float this PIN <ul style="list-style-type: none"> <li>• Drive EN High Level to turn on the converter</li> <li>• Drive EN Low Level to turn off the converter</li> </ul>
6	BS	High Side Gate Drive Boost Input Connect a 0.1uF ceramic capacitor between BS and SW pins.