

1.2A 1.5MHz Synchronous Buck Converter

❖ GENERAL DESCRIPTION

The MA5007 is a monolithic synchronous buck regulator with a built in internal power MOSFET. It achieves 1.2A continuous output current fix switching frequency with excellent load and line regulation.

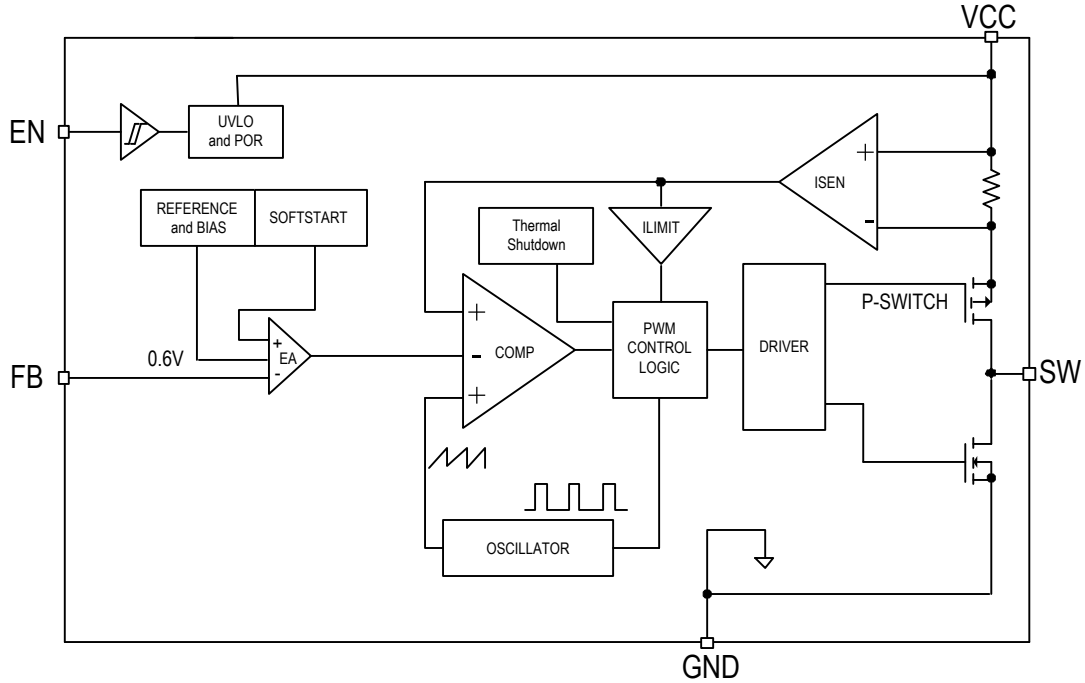
Current mode operation provides fast transient response and eases of loop stabilization.

Fault condition protection includes cycle-by-cycle current limiting, output short circuit protection and thermal shutdown. In shutdown mode the regulator draws less than 1 μ A of supply current. Internal soft-start minimizes the inrush supply current at initial startup.

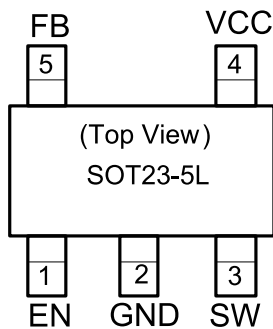
The MA5007 requires a minimum number of readily available standard external components. It is available in SOT23-5L package.

❖ FEATURES

- 2.5V to 5.5V input voltage range
- Up to 1.2A Output Current
- 300/200m Ω Internal Power MOSFET Switch
- Stable with Low ESR Output Ceramic Capacitors
- Up to 95% Efficiency
- Less than 1 μ A Shutdown Current
- Only PWM mode and 1.5Mhz Switching Frequency
- Thermal Shutdown Protection
- Current limit and Short Circuit Protections.
- Output Adjustable from 1V to VIN
- Available in SOT23-5L Pb-Free Package
- Build-in soft start function
- Input UVLO and OVLO protections

❖ BLOCK DIAGRAM

❖ PIN ASSIGNMENT

The packages of MA5007 is SOT23-5L ; the pin assignment is given by:



Name	Description
EN	Chip Enable pin. Active high.
GND	Ground Pin.
SW	Switching Pin
VCC	VCC Input Pin
FB	Feedback Pin.