
Step-Down DC/DC Controller

FEATURES

- Wide Range Of Input Voltage: 2.5V~18V
- Oscillation Frequency: 500kHz
- Standby Current: Typical 0.1 μ A
- High Efficiency: Typical 88%
- Low Temp. Coefficient of Feedback Voltage:
Typical ± 100 ppm/ $^{\circ}$ C
- Built-in Soft-start and UVLO
- Thermal Shutdown
- Package: SOP-8

APPLICATION

- Distributed Power Systems
- Battery Chargers
- Pre-regulator for linear Regulators

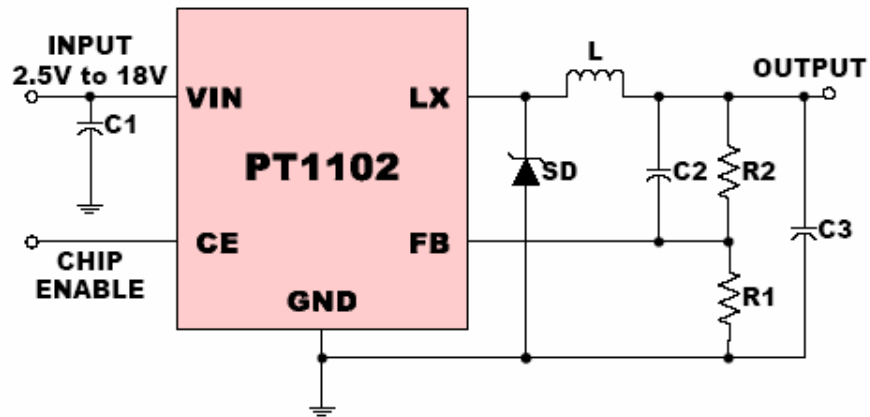
GENERAL DESCRIPTION

The PT1102 is a CMOS-based fixed frequency step-down DC/DC converter with a built-in internal power MOSFET. It achieves 1A continuous output current over a wide input supply range with excellent load and line regulation. It requires a minimum number of readily available external components to complete a 1A step down DC to DC converter solution with low ripple and high efficiency. The output voltage can be adjusted with external resistors.

With the enhanced voltage mode operation, the PT1102 achieves good loop stability with wide operating range. Under light load conditions, the PT1102 automatically switches to a VFM mode to improve efficiency. Fault condition protection includes current limiting and thermal shutdown. Furthermore, the PT1102 has a built-in UVLO function that prevents the output from being unstable when the input voltage becomes too low.

The PT1102 is available in SOP8 packages.

TYPICAL APPLICATIONS



L: CR105-270MC (Sumida, 27 μ H) or Equivalent

C1: 4.7 μ F, Ceramic Type

R2: 40k Ω (For 5V Output)

C3: 47 μ F, Tantalum Type

SD: RB063L-30(Rohm) or Equivalent

R1: 10k Ω

C2: 1nF, Ceramic Type