

Features

- ◆ V_{IN} Operate with 9V ~ 32V Supply Voltage
- ◆ V_{OUT} Accuracy ($V_{REF} = 1.0V$) $\pm 2.0\%$
- ◆ CC/CV Mode Control
- ◆ External Current Limit Setting
- ◆ Over Temperature Protection
- ◆ Internal Soft Start 3ms
- ◆ Fixed Frequency 120 KHz
- ◆ UVLO Protection($typ=7.5V$)
- ◆ Output Overvoltage Protection
- ◆ Duty Cycle Range (0~95%)
- ◆ Single Pin to External Compensation and Shutdown Control
- ◆ C_{OUT} MLCC support
- ◆ Built in Adjustable Line-Compensation
- ◆ SOP-8L Package

Applications

- ◆ Car Chargers
- ◆ Portable Charger Devices
- ◆ General-Purpose DC/DC Converters with Current Limit

General Description

The SP1223F is a synchronous buck converter with output current to 3.5A. It is designed to allow for operating a wide supply voltage range from 9V to 32V. The external shutdown function can be controlled by logic level to pull COMP/EN pin down, and then comes into standby mode. The external compensation makes feedback control have good line and load regulation with flexible external design.

The SP1223F operates in the CC(Constant output Current) mode or CV(Constant output Voltage) mode, and the OCP current value is set by current sensing resistors.

The SP1223F is suitable for the DC/DC switching power applications when requested the current limit function. The devices are available in SOP-8L package and require very few external devices for operation.

Simplified Application

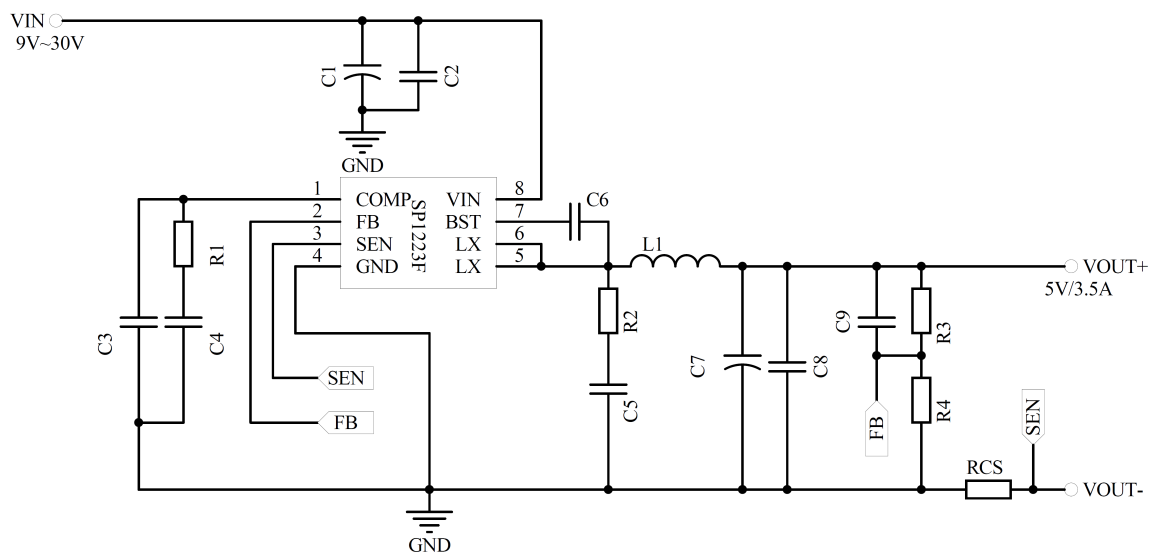


Figure 1 Typical Application of SP1223F