

Description

TCS4435 is a high efficiency, monolithic synchronous step-down DC/DC converter utilizing a constant frequency, average current mode control architecture. Capable of delivering up to 3.5A continuous load with excellent line and load regulation. The device operates from an input voltage range of 7V to 38V and provides an adjustable output voltage from 3.6V to 25V.

The TCS4435 features short circuit and thermal protection circuits to increase system reliability. The internal soft-start avoids input inrush current during startup.

The TCS4435 require a minimum number of external components. and a wide array of protection features to enhance reliability

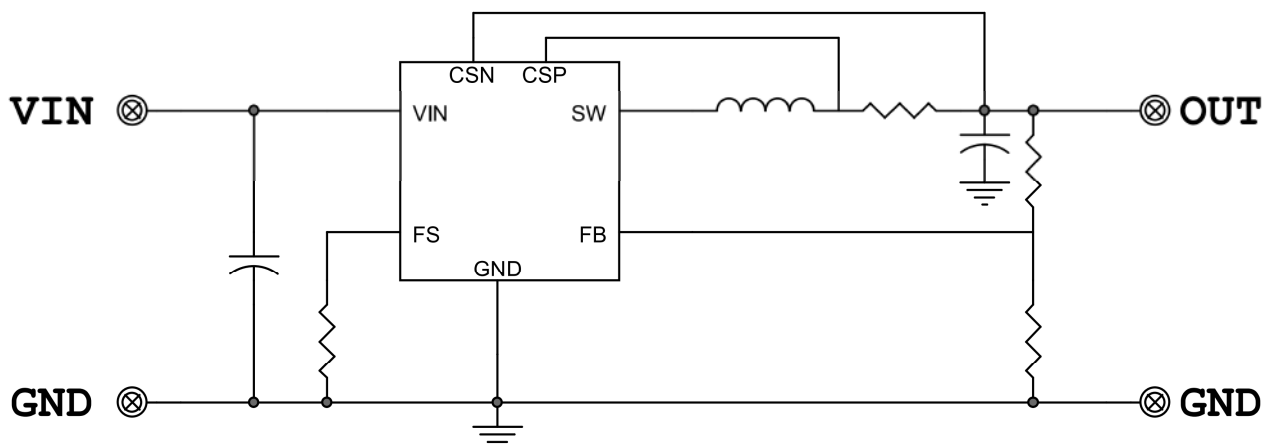
Features

- Wide VIN Range : 7V to 38V
- 3.5A Continuous Output Current
- Up to 94% Efficiency
- CC/CV Mode Control
- 100% Max Duty Cycle
- Built in Adjustable Line-Compensation
- Adjustable Output Voltages
- +/-1.5% Output Voltage Accuracy
- +/- 5% Current Limit Accuracy.
- Integrated 45mΩ High Side Switch
- Integrated 23mΩ Low Side Switch
- Programable Frequency(130KHz~300KHz)
- Burst Mode Operation at Light Load
- Internal loop Compensation
- Internal Soft Start
- Available in SOP8 Package

Applications

- Car Charger
- Rechargeable Portable Devices
- Networking Systems
- Distributed Power Systems

Typical Application



Note: When using a solid or ceramic input Cap, It is recommended to parallel a TVS diode.