

SC3512 Fast Turn-Off Synchronous Rectifier

1 Description

SC3512 is a smart secondary-side synchronous rectifier. It integrates a 60V power MOSFET. SC3512 can replace Schottky diode so the system can achieve higher efficiency.

The SR MOSFET is turned on when the V_{VD} falls below turn-on threshold, and turned off when the V_{VD} exceeds turn-off threshold. The SR conduction voltage drop is continuously monitored to minimize the conduction loss. The extremely fast turn-off comparator and driving circuitry ensures the safety of the system, even in current continuous mode (CCM) condition.

This chip supports both high side rectification and low side rectification.

2 Features

- No need of auxiliary winding for power supply
- Patented programmable turn on detection circuitry
- Extremely low quiescent current leads to low stand by power
- Supports DCM, CCM, and Quasi-Resonant mode converters
- Supports both high and low side synchronous rectification
- SOP8 package available

3 Applications

- Universal AC-DC Adaptors
- USB PD and QC Chargers
- Flyback Power Supplies with Variable Output Voltage
- AC-DC auxiliary supplies

4 Device Information

ORDER NUMBER	PACKAGE	BODY SIZE
SC3512SEER	SOP8	6.0mm x 4.9mm x 1.55mm