

## SC3510 Fast Turn-Off Synchronous Rectifier

### 1 Description

SC3510 is a smart secondary-side synchronous rectifier. It integrates a 100V power MOSFET. SC3510 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
- QFN5x6 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
SC3510QFGR	QFN5x6	6.0mm x 5.0mm x 0.9mm