

## HERO SWITCHER™ (High-Frequency Efficient Rapid Output) 8A Step-Down Regulator

### Features

- σ Input Voltage Range from 2.2V to 5.5V
- σ I<sup>2</sup>C Controlled Output Voltage Range from 0.5V to 2.4 V (3.3V offered by SX0108A output voltage adjustable version)
- σ Up to 8A Output Current
- σ Up to 95% Efficiency
- σ Power Save Mode 30μA Quiescent Current at Light Load
- σ **HERO SWITCHER™** Rapid Output Load Transient Responses
- σ **HERO SWITCHER™** Programmable 2-4.5MHz Switching Frequency at PWM
- σ Internal Compensated
- σ Startup output voltage selection
- σ I<sup>2</sup>C slave address selection
- σ Dynamic Voltage Scaling
- σ Fault Interrupt Output
- σ 2mm x 2.5mm DFN Package

### Applications

- σ Telecom
- σ Optical modules
- σ Power supply for FPGAs, CPUs, and ASICs

### Description

The SX0108 is a high efficiency step down regulator with up to 4.5MHz switching frequency. SX0108 operates with input voltage range from 2.2V to 5.5V and it is able to deliver 8A output current.

With the I<sup>2</sup>C interface, SX0108 provides programmable output voltages between 0.5V to 2.4V. Programmable frequency from 2MHz to 4.5MHz. Programmable 25KHz switching limit for low acoustic noise application. And, programmable force PWM mode.

The SX0108 RID\_IRQn pin is a triple functions pin. It configures the initial output voltage as well as the slave address. After start up the pin becomes the interrupt output.

### Typical Application Circuits

