

DESCRIPTION

The RS8016 Switch Regulator is a 1.2A step-down converter with an input voltage range of 2.7V to 5.5V and an adjustable output voltage from 0.6V to V_{IN} . The 1.5MHz switching frequency enables the use of small external components. The small footprint and high efficiency make the RS8016 an ideal choice for portable applications.

The RS8016 delivers 1.2A maximum output current while consuming only 45 μ A of no-load quiescent current. Ultra-low $R_{DS(ON)}$ integrated MOSFETs and 100% duty cycle operation make the RS8016 an ideal choice for high output voltage, high current applications which require a low dropout threshold.

The RS8016 provides excellent transient response and high output accuracy across the operating range. No external compensation components are required.

The RS8016 maintains high efficiency throughout the load range. The RS8016's unique architecture produces reduced ripple and spectral noise. Over-temperature and short-circuit protection safeguard the RS8016 and system components from damage. The RS8016 is available in DFN-6L package.

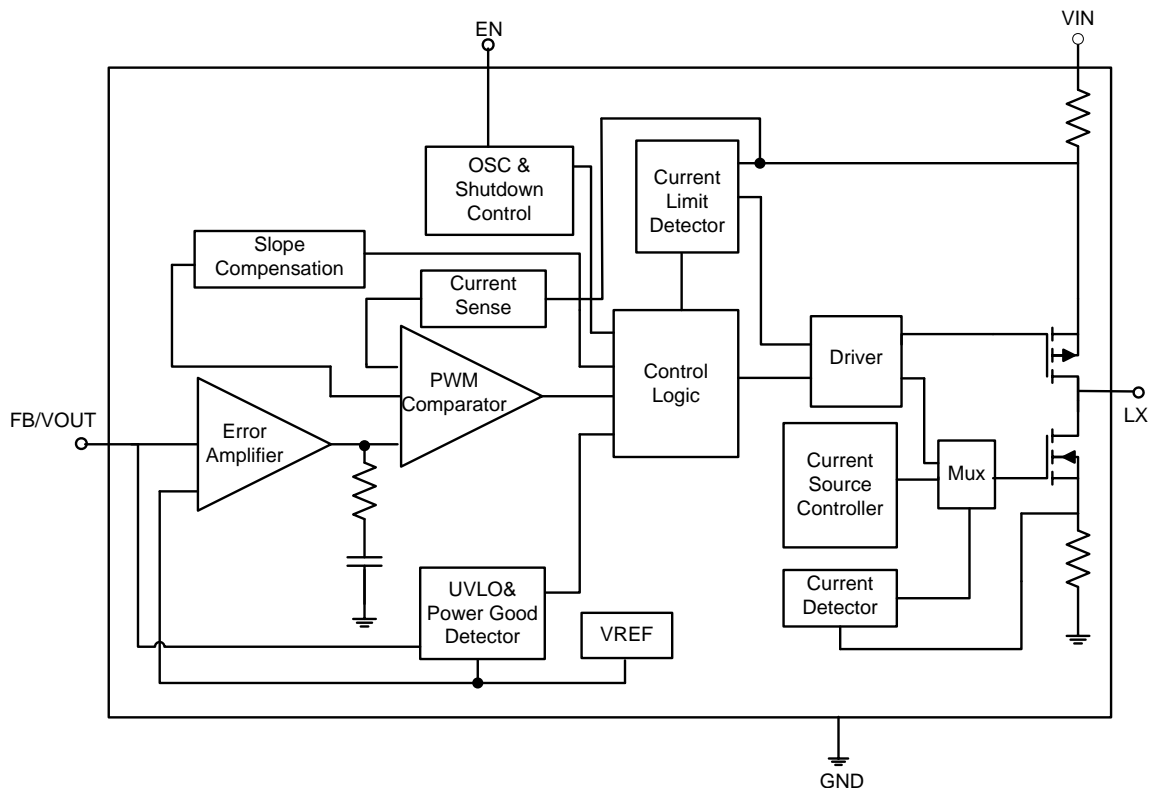
FEATURES

- High efficiency: up to 96%
- 1.5MHz constant switching frequency
- Output current up to 1.2A
- Integrated Main switch and synchronous rectifier. No schottky diode required
- 2.7V to 5.5V input voltage range
- Output voltage as low as 0.6V
- 100% duty cycle in dropout
- Quiescent current : 45 μ A (input < 4.2V)
- Slope compensated current mode control for excellent line and load transient response
- Short circuit protection
- <1 μ A Shutdown current

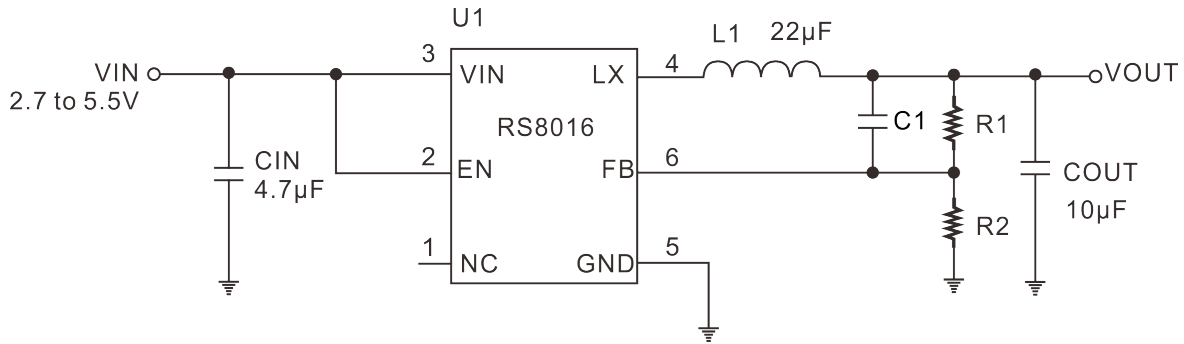
APPLICATIONS

- Mobile phones
- Personal information appliances
- Wireless and DSL Modems
- MP3 players
- Portable instruments

BLOCK DIAGRAM



APPLICATION CIRCUIT

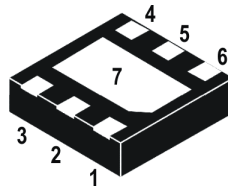


ORDER INFORMATION

Device	Device Code
RS8016-X YY Z	X is nominal output voltage designator : A : ADJ YY is package designator : DF: DFN-6 Z is Lead Free designator : P: Commercial Standard, Lead (Pb) Free and Phosphorous (P) Free Package

PIN ASSIGNMENTS

DFN-6L



PIN DESCRIPTION

Symbol	Description	Pin No.
NC	No Internal Connect (Floating or Connecting to GND)	1
EN	Chip Enable (Active High)	2
VIN	Power Input	3
LX	Pin for Switching	4
GND	Ground	5,7
FB / VOUT	Feedback / Output Voltage Pin	6

IMPORTANT NOTICE

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