

DESCRIPTION

The RS8017 dual-channel 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 RS8017 an ideal choice for portable applications.

The RS8017 channel 1 or channel 2 delivers 1.2A maximum output current while consuming only 55 μ A of no-load quiescent current. Ultra-low $R_{DS(ON)}$ integrated MOSFETs and 100% duty cycle operation make the RS8017 an ideal choice for high output voltage, high current applications which require a low dropout threshold.

The RS8017 provides excellent transient response and high output accuracy across the operating range. No external compensation components are required.

The RS8017 maintains high efficiency throughout the load range. The RS8017's unique architecture produces reduced ripple and spectral noise. Over-temperature and short-circuit protection safeguard the RS8017 and system components from damage.

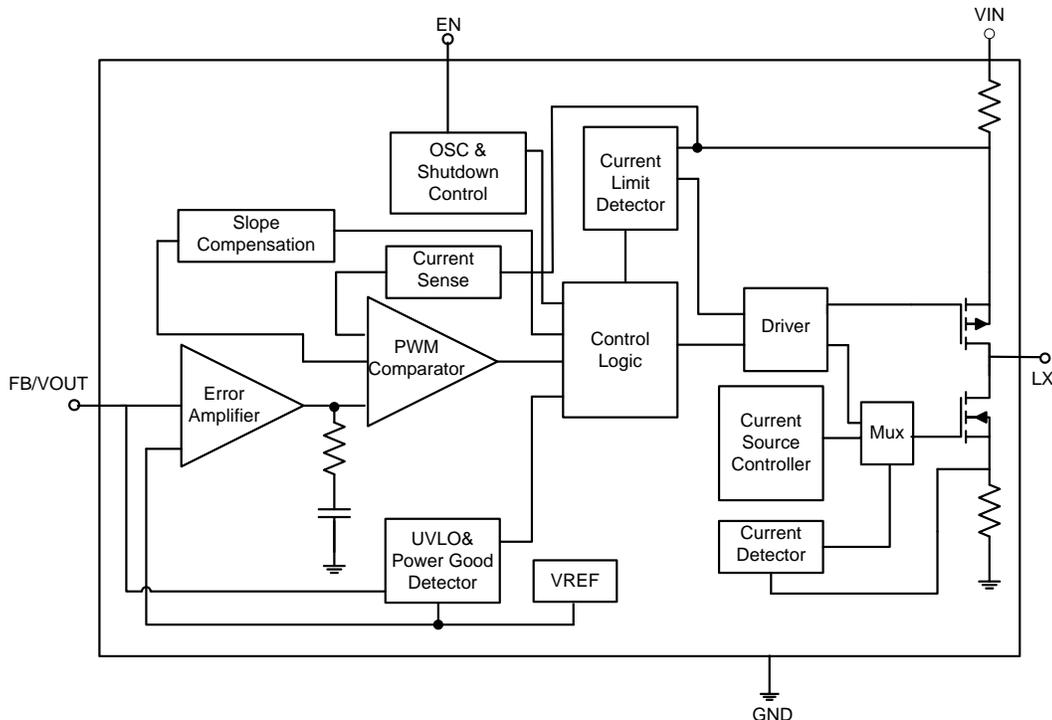
FEATURES

- Channel Output Current: Up to 1.2A
- Output Voltage: 0.6V to V_{IN}
- Input Voltage: 2.7 to 5.5V
- Efficiency up to 95%
- 45 μ A No Load Quiescent current
- Shutdown Current: <1 μ A
- Internal Soft Start
- Thermal Shutdown
- Current Limit Protection
- No external Compensation Required
- 100% Duty Cycle Operation
- 1.5MHz Switching Frequency
- DFN-12L green package

APPLICATIONS

- DSC \ DV \ BT device
- ADXL \ Mobil Phone
- Portable Media Players
- Handheld Computers

BLOCK DIAGRAM



APPLICATION CIRCUIT

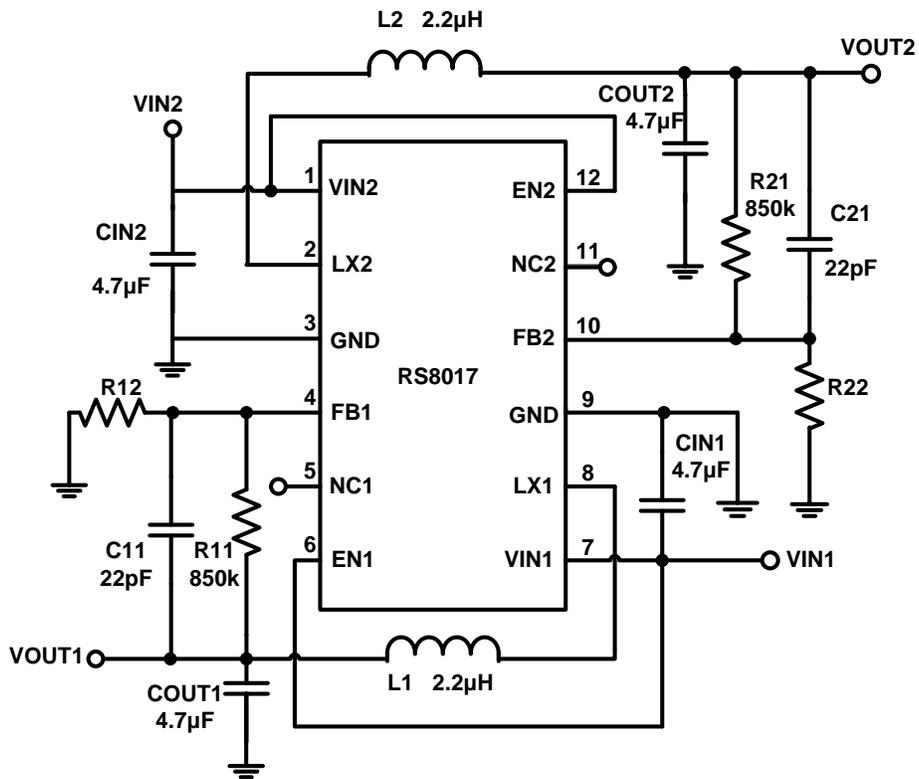


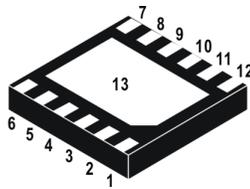
Figure : Adjustable Voltage Regulator

ORDER INFORMATION

Device	Device Code
RS8017-X YY Z	X is nominal output voltage designator : A : ADJ YY is package designator : DF: DFN-12 (3mm x 3mm) Z is Lead Free designator : P: Commercial Standard, Lead (Pb) Free and Phosphorous (P) Free Package G : Green (Halogen Free with Commercial Standard)

PIN ASSIGNMENTS

DFN-12



PIN DESCRIPTION

Symbol	Description	Pin No.
VIN2	Power Input of Channel 2.	1
LX2	Pin for Switching of Channel 2.	2
GND	Ground. Exposed pad should be soldered to PCB board and connected to GND.	3, 9, 13
FB1	Feedback of Channel 1.	4
NC1, NC2	No Connection or Connect to V_{IN} .	5, 11
EN1	Chip Enable of Channel 1.	6
VIN1	Power Input of Channel 1.	7
LX1	Pin for Switching of Channel 1.	8
FB2	Feedback of Channel 2.	10
EN2	Chip Enable of Channel 2.	12

IMPORTANT NOTICE

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