



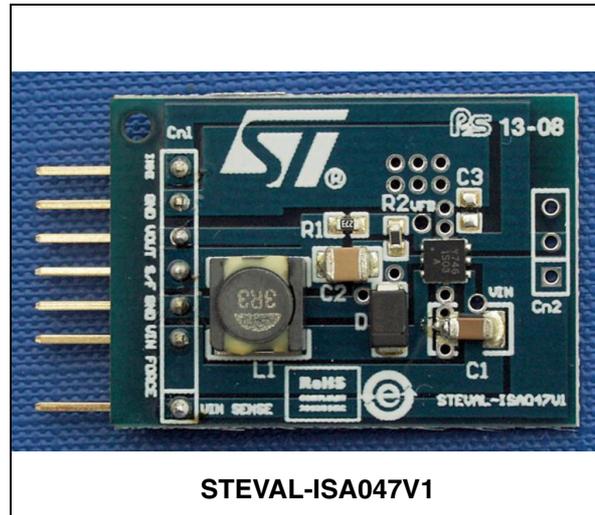
STEVAL-ISA047V1

1.5 A / 1.2 V step-down DC-DC converter demonstration board based on the ST1S03A

Data brief

Features

- Step-down current mode PWM (1.5 MHz) DC-DC converter
- 2% DC output voltage tolerance
- Internal soft-start for start-up current limitation and power on delay of 50-100 μ s
- Typical efficiency: > 85%
- Inhibit function
- 1.5 A output current capability
- Not switching quiescent current: max 1.5 mA (overtemperature range)
- Switch V_{DS} : max 200 mV @ $I_{SW} = 750$ mA
- Uses tiny capacitors and inductors
- RoHS compliant



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Description

This demonstration board is based on the ST1S03A, an adjustable current mode PWM step-down DC-DC converter with internal 1.5 A power switch, packaged in a 6-lead DFN 3x3 mm.

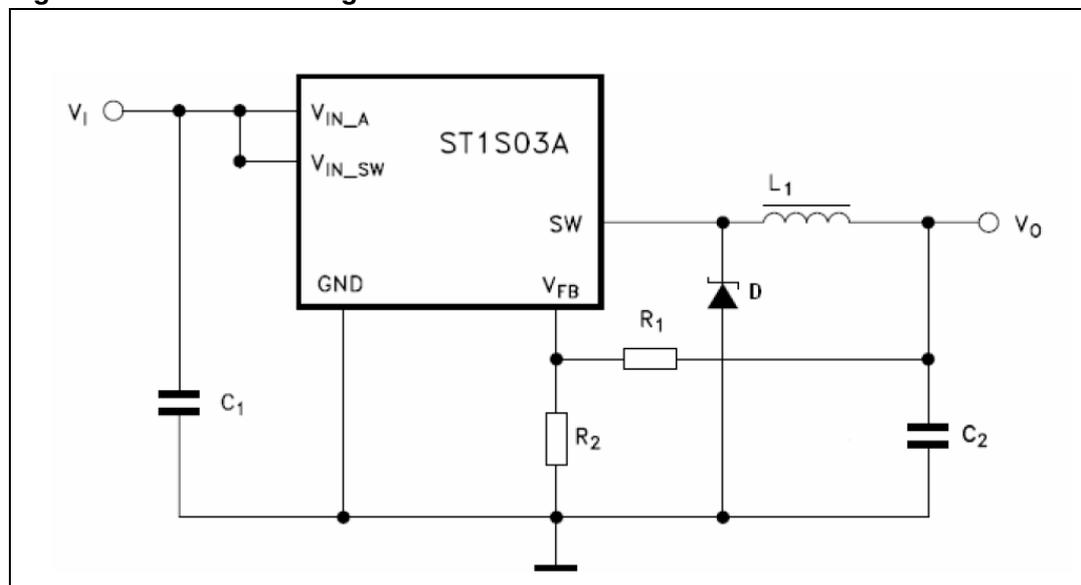
It's a complete 1.5 A switching regulator with its internal compensation eliminating additional component.

The constant frequency, current mode, PWM architecture and stable operation with ceramic capacitors results in low, predictable output ripple.

However, in order to maximize the power conversion efficiency with light load, the regulator reduces automatically the switching frequency when the output load becomes less than 250 mA typically.

1 Circuit schematic

Figure 1. Schematic diagram



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
30-Jun-2009	1	Initial release.

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