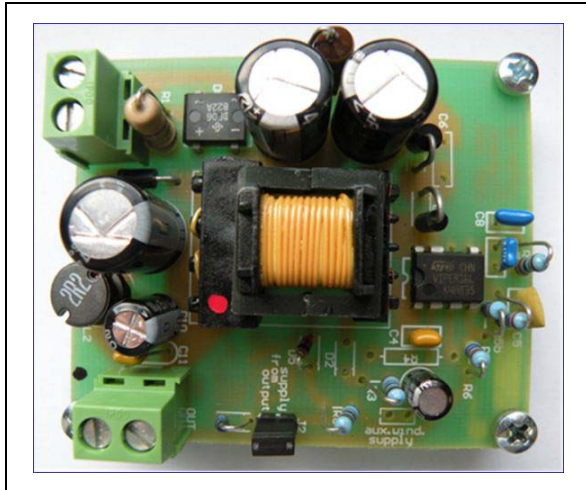


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**16 V - 280 mA non isolated off-line high voltage converter based on the VIPer16**

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Data brief



reach very low standby consumption ( $< 50 \text{ mW}$  at  $265 \text{ V}_{\text{ac}}$ ), while in the latter the IC is supplied by an internal current generator, thus eliminating the cost of the transformer auxiliary winding.

- Protection features available include thermal shutdown with hysteresis and delayed overload protection.

## Features

- Input voltage range  $V_{\text{IN}}$ :  $90 \text{ V}_{\text{RMS}} - 265 \text{ V}_{\text{RMS}}$
- Output voltage  $V_{\text{OUT}}$ :  $16 \text{ V}$
- Max output current  $I_{\text{OUT}}$ :  $0.28 \text{ A}$
- Precision of output regulation  $V_{\text{OUT\_LF}}$ :  $\pm 5\%$
- High frequency output voltage ripple  $V_{\text{OUT\_HF}}$ :  $50 \text{ mV}$
- Max ambient operating temperature  $T_{\text{A}}$ :  $60 \text{ }^\circ\text{C}$
- RoHS compliant

## Description

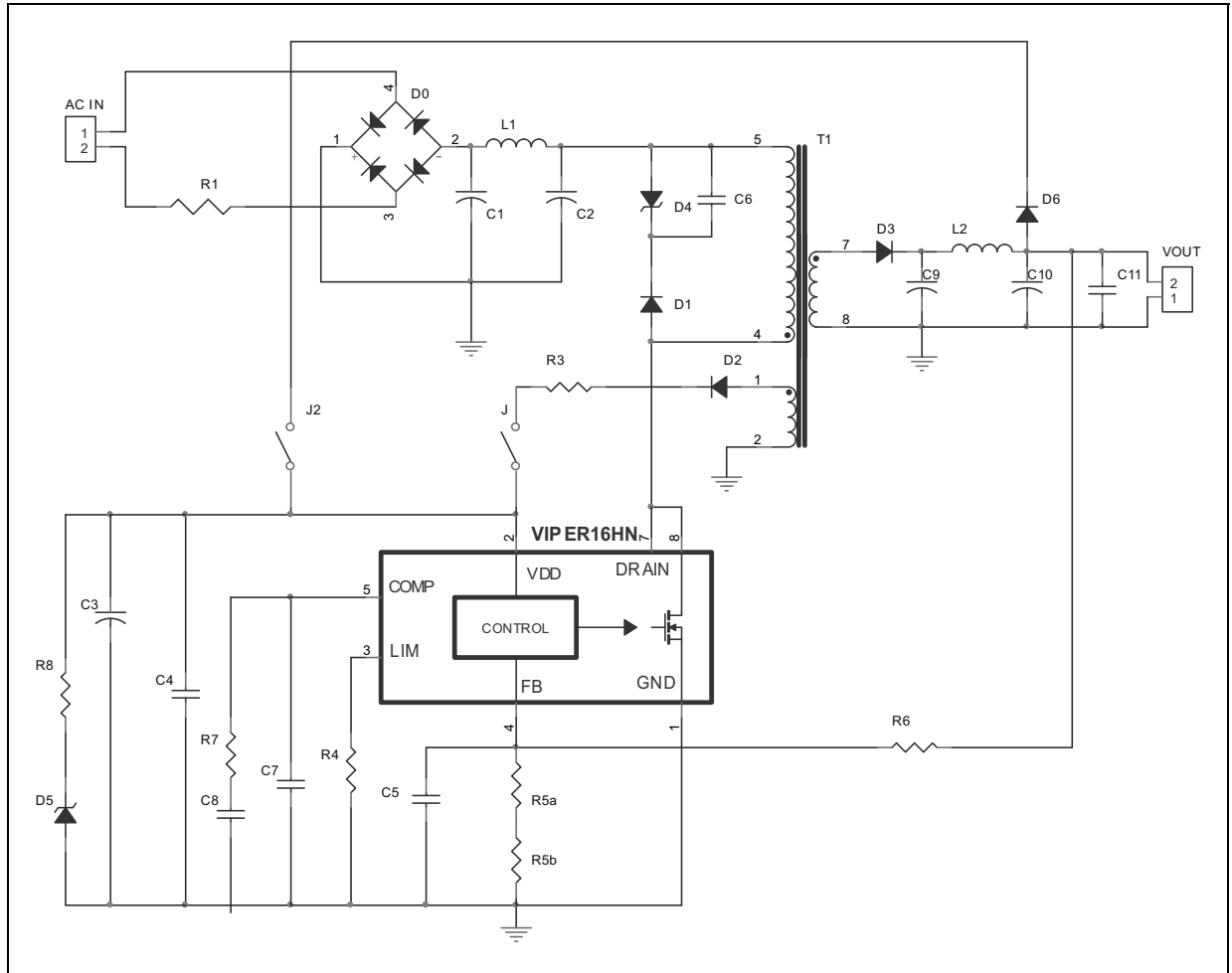
The STEVAL-ISA129V1 demonstration board is a 16 V - 280 mA application set in non isolated flyback topology using the VIPer16, a new off-line high voltage converter by STMicroelectronics.

The VIPer16 features an 800 V avalanche rugged power section, PWM operation at 115 kHz with frequency jittering for lower EMI, limiting current with adjustable set point, on-board soft-start, and safe auto-restart after a fault condition.

Moreover, the VIPer16 can work with or without the auxiliary winding. In the former case, it can

# 1 Schematic diagram

Figure 1. STEVAL-ISA129V1 circuit schematic



## 2 Revision history

Table 1. Document revision history

Date	Revision	Changes
16-Apr-2013	1	Initial release.

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