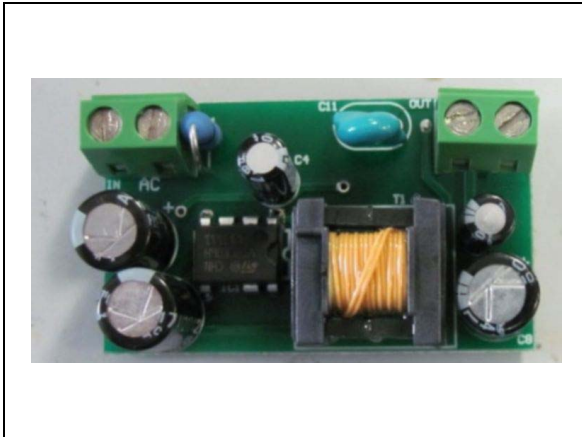

12 V - 4 W, 115 kHz isolated flyback based on the VIPer06

Data brief

Protection features available include thermal shutdown with hysteresis, delayed overload protection, and open loop failure protection (the latter available only if auxiliary winding is used).

This flyback converter design is suitable for various applications, such as external adapter or as an auxiliary power supply in consumer equipment.

Features

- AC main input voltage V_{IN} : 85 V_{AC} - 265 V_{AC}
- Main frequency f_L : 50 Hz; 60 Hz
- Output voltage V_{OUT} : 12 V
- Max output current I_{OUT} : 333 mA
- Precision of output regulation ΔV_{OUT_LF} : $\pm 5\%$
- High frequency output voltage ripple:
 ΔV_{OUT_HF} 50 mV
- Min active mode efficiency $\eta_{AV} = 71\%$
- Max ambient operating temperature:
 $T_{AMB} = 60\text{ }^{\circ}\text{C}$

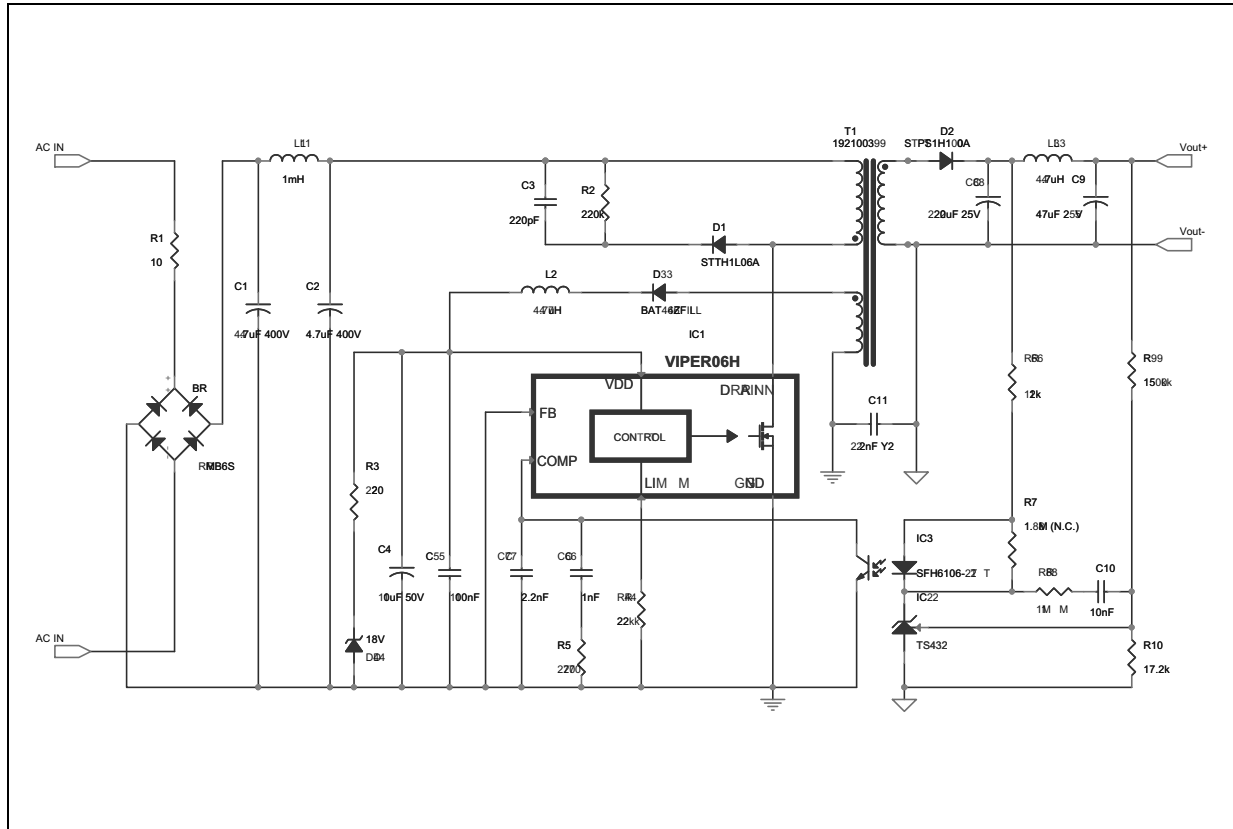
Description

The STEVAL-ISA134V1 demonstration board is a 12 V - 4 W power supply in isolated flyback topology using the VIPer06, a new off-line high voltage converter by STMicroelectronics.

The VIPer06 features an 800 V avalanche rugged power section, PWM operation at 115 kHz with frequency jittering for lower EMI, cycle-by-cycle current limit with adjustable set point, on-board soft-start and safe auto-restart after a fault condition.

1 Schematic diagram

Figure 1. STEVAL-ISA134V1 circuit schematic



2 Revision history

Table 1. Document revision history

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

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