



STEVAL-ILB001V2

36 W - 220 Vac low-cost HF ballast demonstration board
using the bipolar solution for PFC

Data brief

Features

- Power supply: 220 Vac
- Power output: 36 W
- Boost topology
- Discontinuous-conduction mode
- RoHS compliant

Description

The STEVAL-ILB001V2 demonstration board is a complete reference system for a simple cost-effective PFC (power factor corrector) using bipolar transistors and is intended for low-to-medium power HF ballasts.

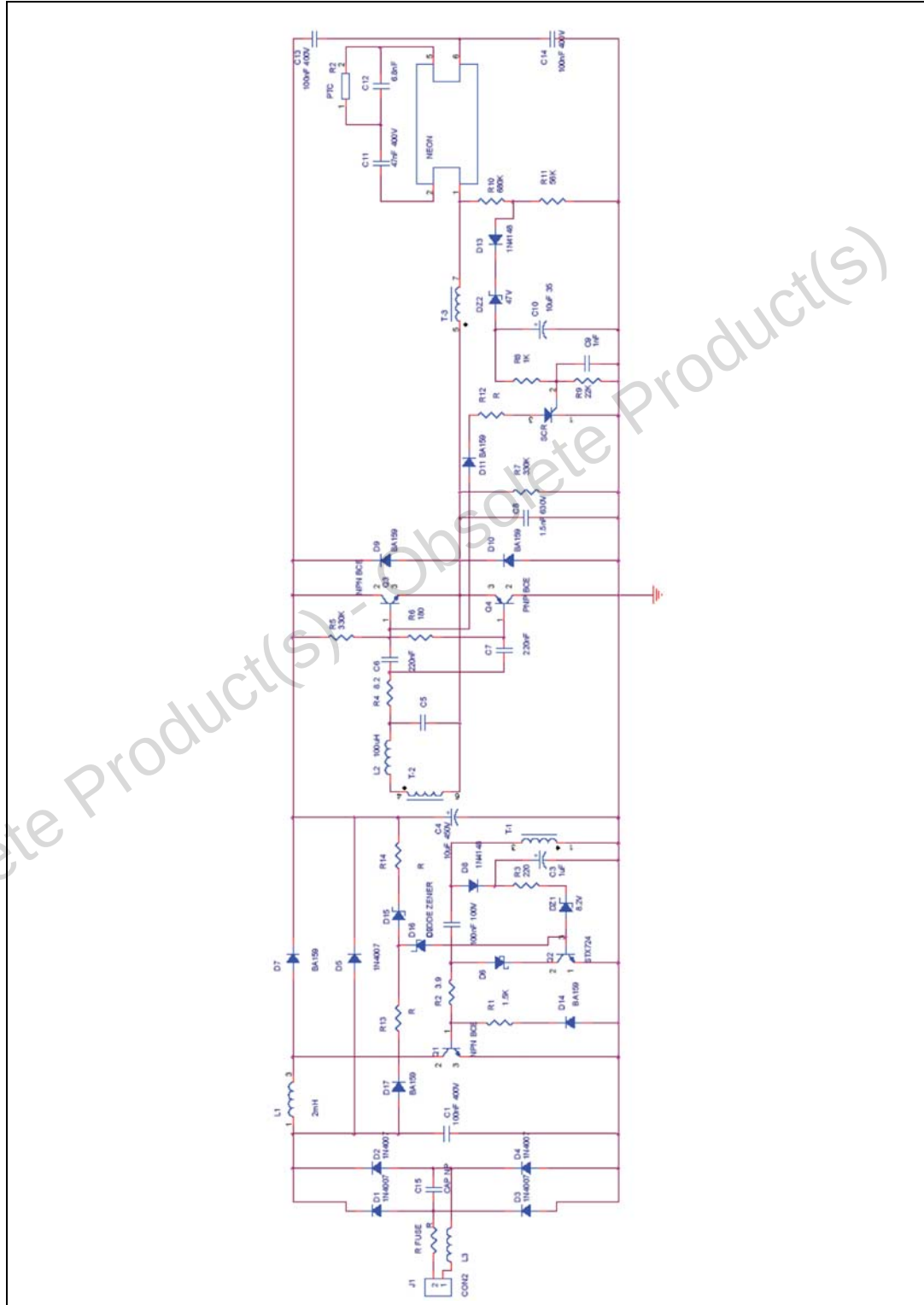
The proposed bipolar PFC solution targets the low-cost HF ballast market up to 80 W as it provides a simple cost-effective solution without sacrificing THD and PF levels. No additional ICs are required for the PWM signal as the device uses just a power bipolar transistor and a closed-loop feedback which performs the duty cycle modulation and output power regulation.

The active PFC solution with bipolar transistor adopts the boost topology operating in discontinuous-conduction mode.



1 Schematic circuit

Figure 1. 40 W demonstration board electrical schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
23-Sep-2010	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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