



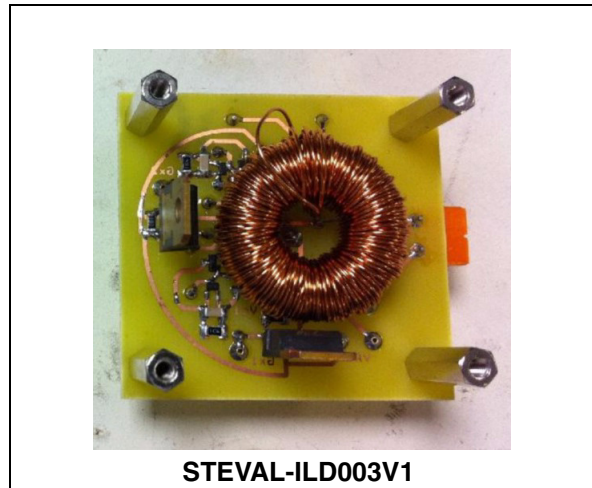
STEVAL-ILD003V1

Analog wall dimmer for CFL/LED lamps
based on the TS820 (EU version 220 V)

Data brief

Features

- Line voltage: 198 - 264 V 50/60 Hz
- Maximum operating ambient temperature: 60 °C
- Incandescent 230 V lamp power:
 - Minimum power: 20 W
 - Maximum power: 350 W (without heatsinks mounted on SCRs^(a))
- Dimmable lamps that can be used:
 - CFL lamp (typically 14 W)
 - LED lamp (typically 6 W)
- RoHS compliant



Description

The purpose of the STEVAL-ILD003V1 demonstration board is to evaluate ST's SCR dimming solution for low-consumption lamps, particularly CFL and LED lamps, eliminating flicker, and to be able to directly test most dimmable loads currently on the market.

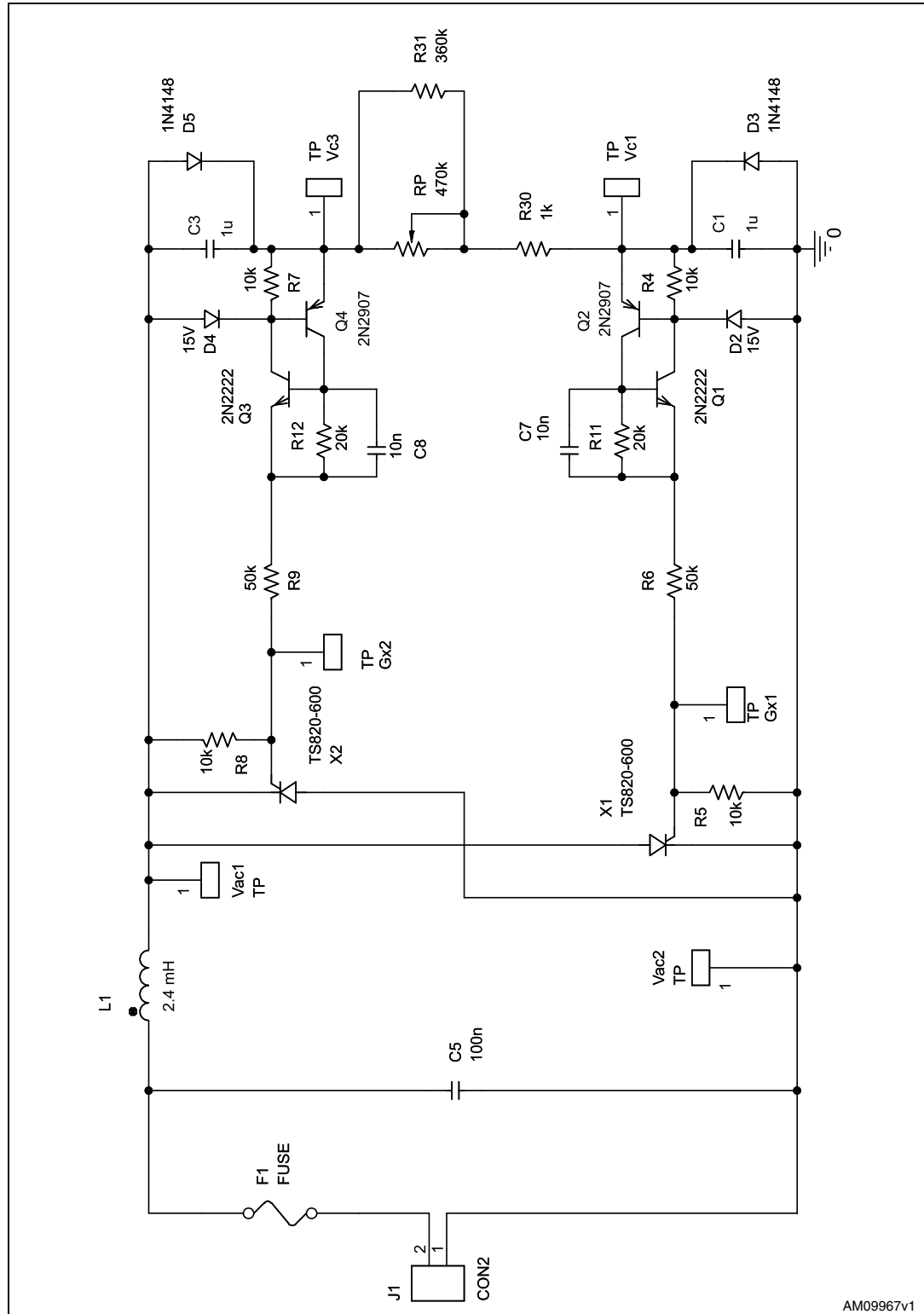
Through-hole technology is used for the most important components such as the LC filter, gate resistor, turn-on delay capacitor, etc., in order to allow board modification, if needed.

AC light dimmers based on SCR dimming technology eliminate flickering as a continuous current is applied through the gate. An SCR dimmer could easily replace a standard low-cost analog Triac light dimmer by using a Diac-controlled circuit.

a. Higher power could be reached with a different filter inductor and SCR heatsink.

1 Circuit schematic

Figure 1. STEVAL-ILD003V1 schematic



AM09967V1

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
26-Oct-2011	1	Initial release.

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