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STEVAL-ILL001V1

Dimmable driver for HB power LEDs with VIPER22A-E (DALI connector)

Data Brief

Features

- Selectable input voltage range: 85 V_{AC} - 135 V_{AC} or 185 V_{AC} – 265 V_{AC}
- Nominal output voltage range: 3.5 V - 28 V
- Maximum output voltage at open load: 32 V
- Output current: 350 mA
- Dimming range: 0 - 90%
- EMI standard: EN55015:2000

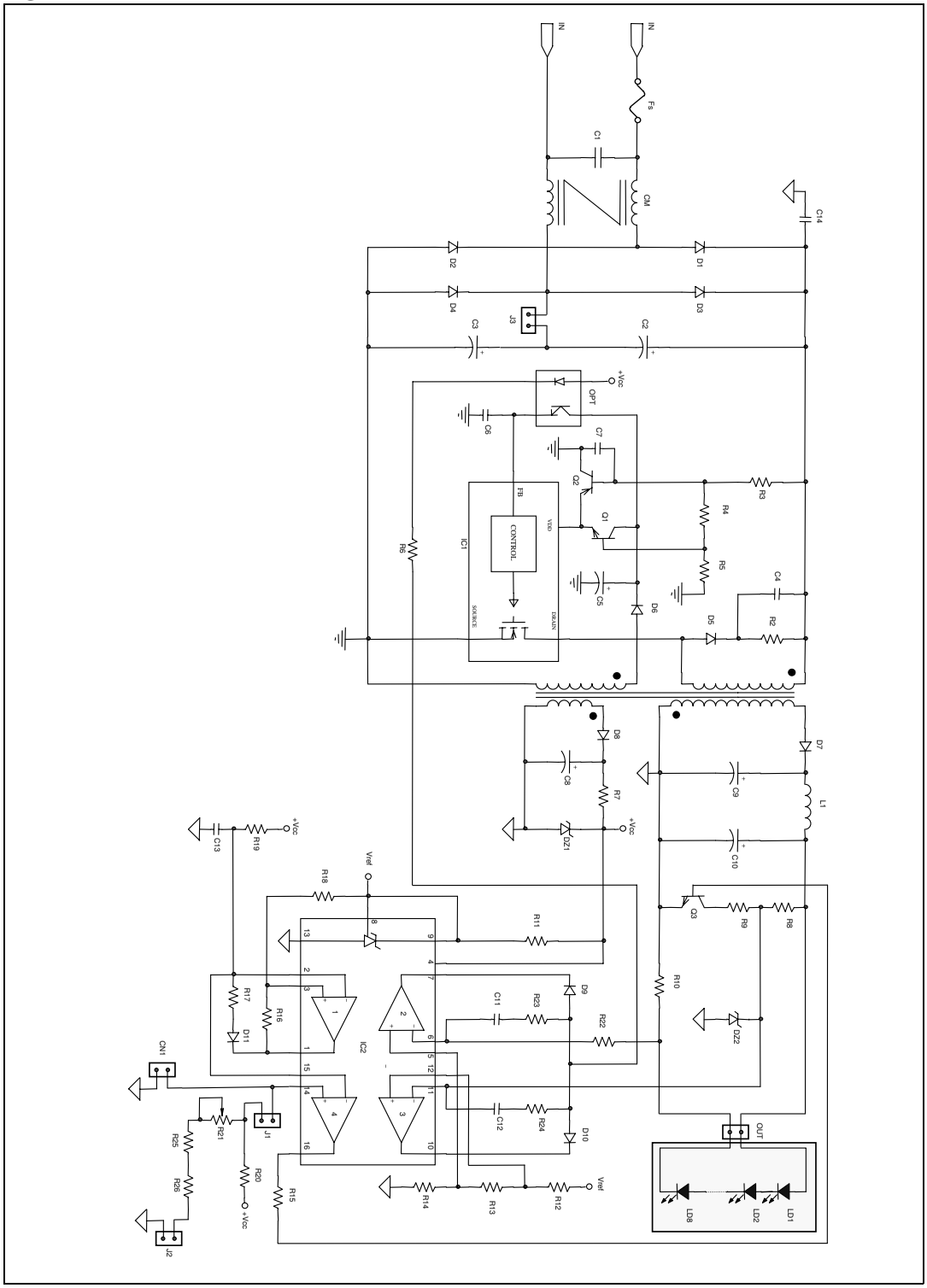
STEVAL-ILL001V1

Description

The STEVAL-ILL001V1 evaluation board introduces an innovative solution for driving high brightness 1 W LEDs (light emitting diodes), using the VIPer22A-E in a flyback configuration with output current control. The power supply is capable of driving a 1 to 8 LED array in the European voltage range of 185-265 VAC without modifications. The same VIPer device can also function within the specifications in the U.S. input voltage range by using an input voltage doubler. An innovative control technique is used to adjust the duty cycle of the output current, in order to dim the luminosity of the LEDs down to 10% of the maximum value (STMicroelectronics patent pending). The proposed driver is suitable for applications such as landscape lighting, street lighting, car parks, bollards, garden lighting, large area displays, etc. Domestic applications such as room lighting, decorative fixtures and architectural lighting can also benefit from a dimmable light source.

1 Board schematic

Figure 1. Schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
30-Oct-2007	1	Initial release

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