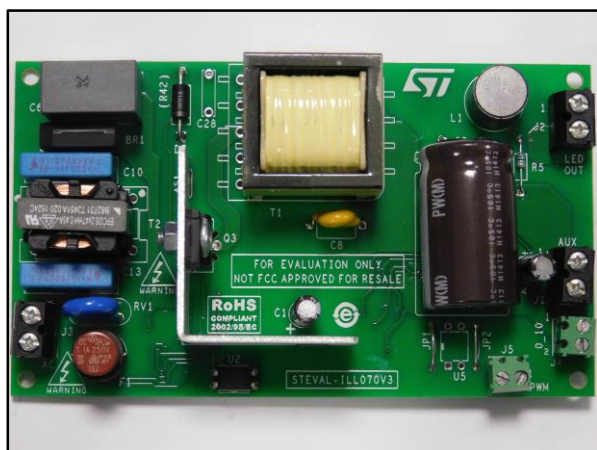


35 W dimmable single string LED driver using HVLED001 in FOT mode

Data brief



Description

The STEVAL-ILL070V3 is designed to drive a single LED string with a maximum output current of 700 mA. The LED current can be finely adjusted using either a 0-10 V interface or a PWM signal (for example provided by a microcontroller) on the SELV portion of the board.

The universal input capability makes this board suitable in worldwide designs. An auxiliary 12 V output is also present to supply small circuitries (e.g. a potentiometer to drive the 0-10 V input) providing a maximum current of 10 mA.

A very high power factor and high efficiency are obtained even under light loads thanks to the "fixed OFF time" operation of HVLED001. Input voltage variations, excessive input voltage (overvoltage like surges or bursts) or very low input voltages are managed by some of the protections on the HVLED001, improving the reliability of the application. Output open circuit and overload protections trigger auto-restart for safe operation in lighting environments.

Features

- Input voltage: V_{IN} : 90 - 305 V_{RMS} , f: 45-66 Hz
- Output current: 700 mA ($V_{LED} = 24$ V to 48 V)
- Dimming: 100% to 10% (any condition)
- Dimming interfaces: 0-10 V and PWM input
- High power factor, low THD
- Efficiency: > 90% @ full load
- Open load voltage limiting
- RoHS compliant

Figure 1: STEVAL-ILL070V3 board schematic part 1

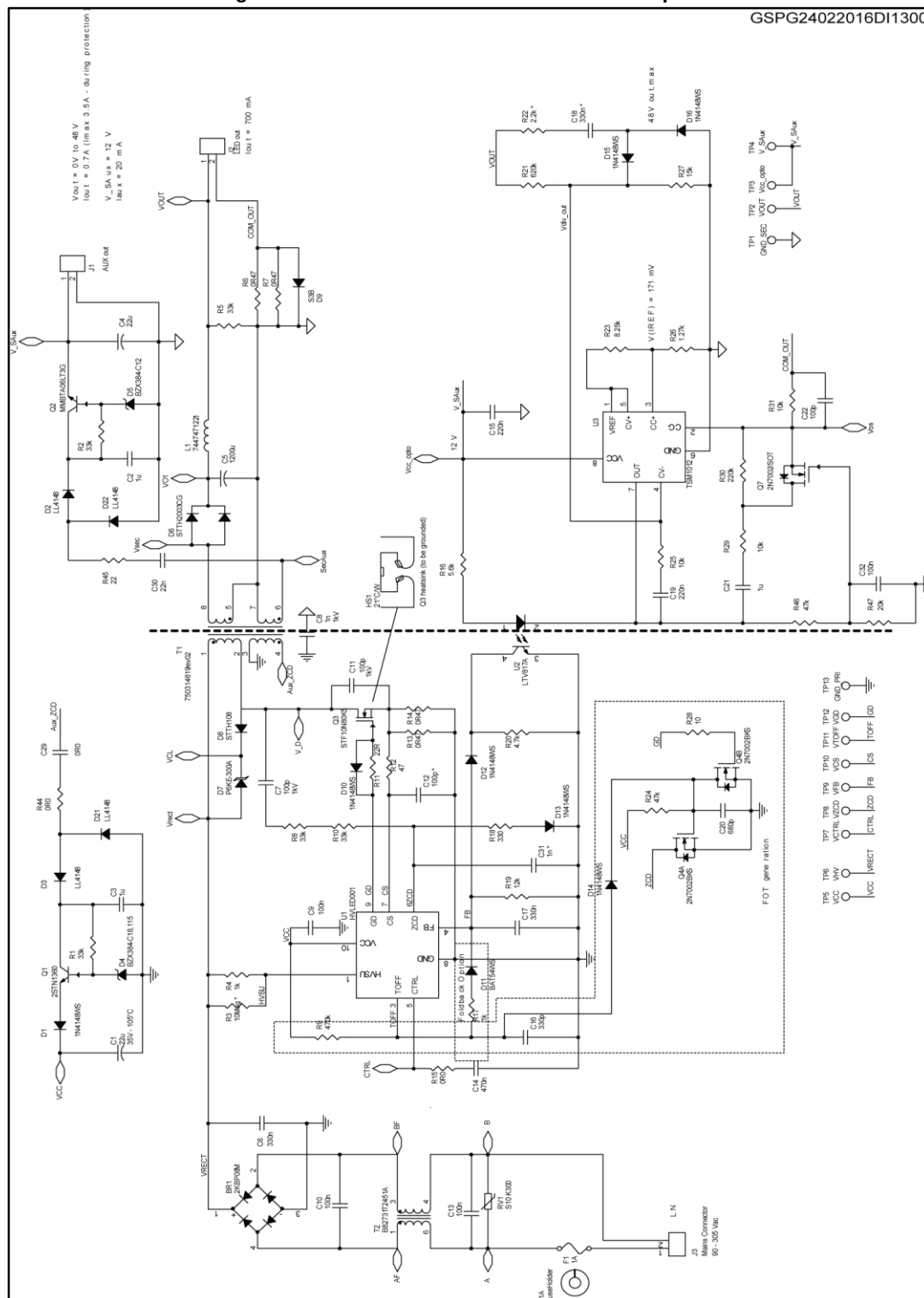
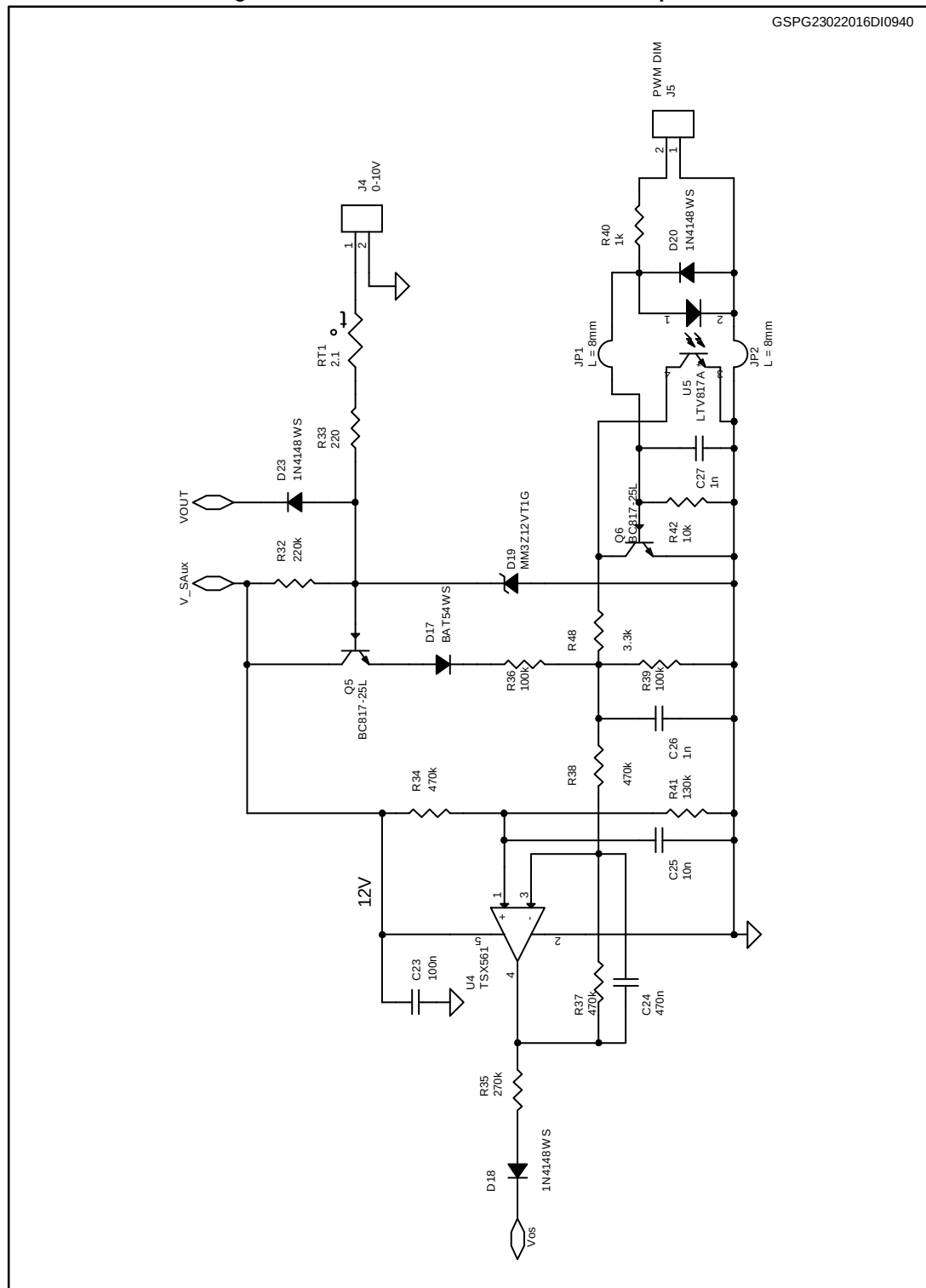


Figure 2: STEVAL-ILL070V3 board schematic part 2



2 Revision history

Table 1: Document revision history

Date	Version	Changes
23-Feb-2016	1	Initial release.
03-Mar-2016	2	Updated: schematic diagram.

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