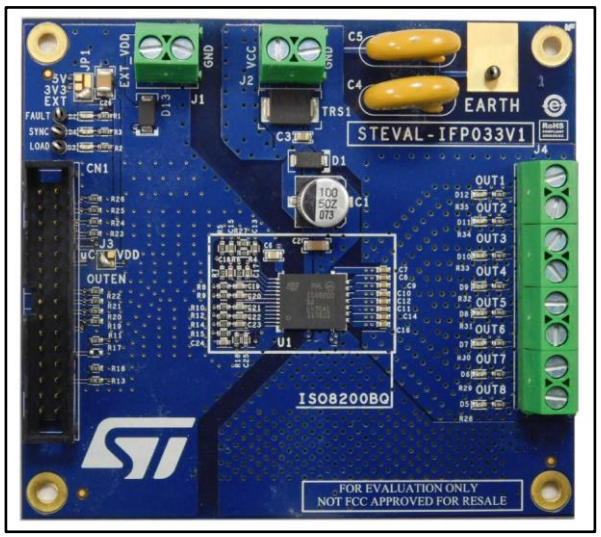
STEVAL-IFP033V1

Galvanically-isolated 8 channel high-side driver based on the ISO8200BQ

Data brief



Features

- V_{CC} operating voltage from 10.5 to 33 V
- 0.7 A for each channel
- Reverse polarity protection on V_{CC} and V_{DD} supply voltage
- Digital supply voltage V_{DD} 3.3 / 5 V
- Microcontroller interface direct/synchronous mode communication
- Designed to meet requirements of IEC 61000-4-2, IEC 61000-4-4 and IEC 61000-4-5 standards
- RoHS compliant

Description

The STEVAL-IFP033V1 functions with the STEVAL-PCC009V2 or STEVAL-PCC009V1 interface board to allow evaluation of the ISO8200BQ device. A large GND area on the printed circuit board is included to minimize noise effects and ensure good thermal performance.

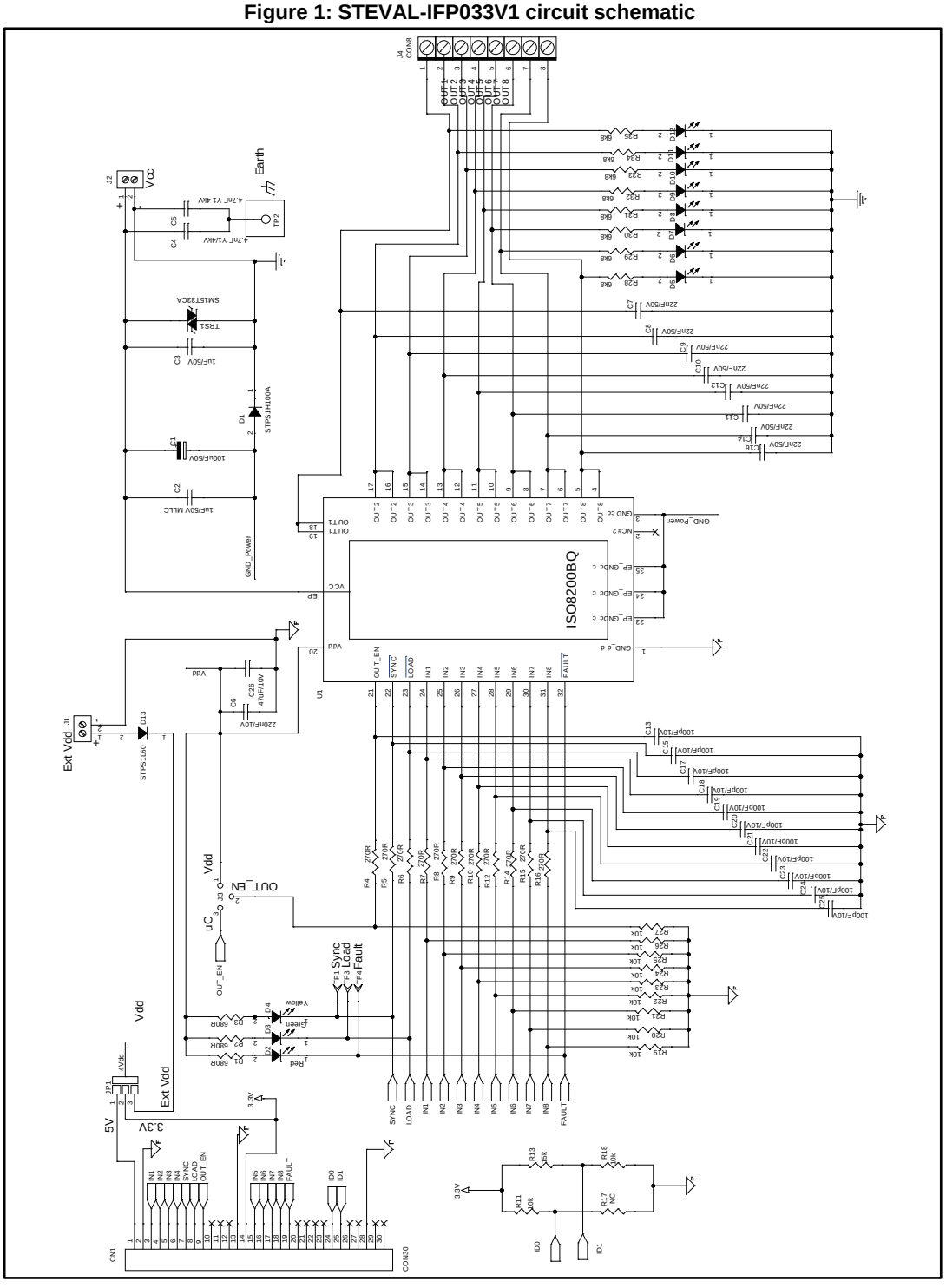
The ISO8200BQ is a galvanic isolated 8 channel driver featuring a very low supply current. It contains two independent galvanic isolated voltage domains (V_{CC} for the power stage and V_{DD} for the digital stage). The IC is intended to drive any type of load with one side connected to ground. Independent active channel current limitation combined with thermal shutdown for each channel and automatic restart protect the device against overload. Other embedded functions include loss of GND protection which automatically turns off the outputs in case of analog ground, undervoltage shutdown with hysteresis and a reset function for immediate power output shutdown.

Built-in thermal shutdown protects the chip against overtemperature and short-circuit. The channel is turned off in the overload condition and switched back on automatically once the IC temperature decreases below the reset threshold. If this condition causes the case temperature to reach the TCR limit, the overloaded channel is turned off and will only restart when case and junction temperature decreased down to the reset threshold. Non overloaded channels continue to operate normally.

An internal circuit provides an OR-wired non latched common FAULT indicator signaling channel OVT. The FAULT pin is an open-drain active-low fault indication pin.

1 Schematic diagram

Figure 1: STEVAL-IFP033V1 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Version	Changes
09-Jun-2017	1	Initial release.

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