High-Speed CAN/LIN Fail-Safe System Basis Chip

UJA1065TW

Not Recommended for New Designs

This page contains information on a product that is not recommended for new designs.

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The UJA1065 fail-safe System Basis Chip (SBC) replaces basic discrete components that are common in every Electronic Control Unit (ECU) with a Controller Area Network (CAN) and a Local Interconnect Network (LIN) interface. The fail-safe SBC supports all networking applications that control various power and sensor peripherals by using high-speed CAN as the main network interface and LIN as a local sub-bus. The fail-safe SBC contains the following integrated devices:

- High-speed CAN transceiver, interoperable and downward compatible with CAN transceivers TJA1041 and TJA1041A, and compatible with the ISO 11898-2 standard and the ISO 11898-5 standard (in preparation)
- LIN transceiver compliant with LIN 2.0 and SAE J2602, and compatible with LIN 1.3
- Advanced independent watchdog
- Dedicated voltage regulators for microcontroller and CAN transceiver
- Serial peripheral interface (full duplex)
- Local wake-up input port
- Inhibit/limp-home output port

In addition to the advantages of integrating these common ECU functions in a single package, the fail-safe SBC offers an intelligent combination of system-specific functions such as:

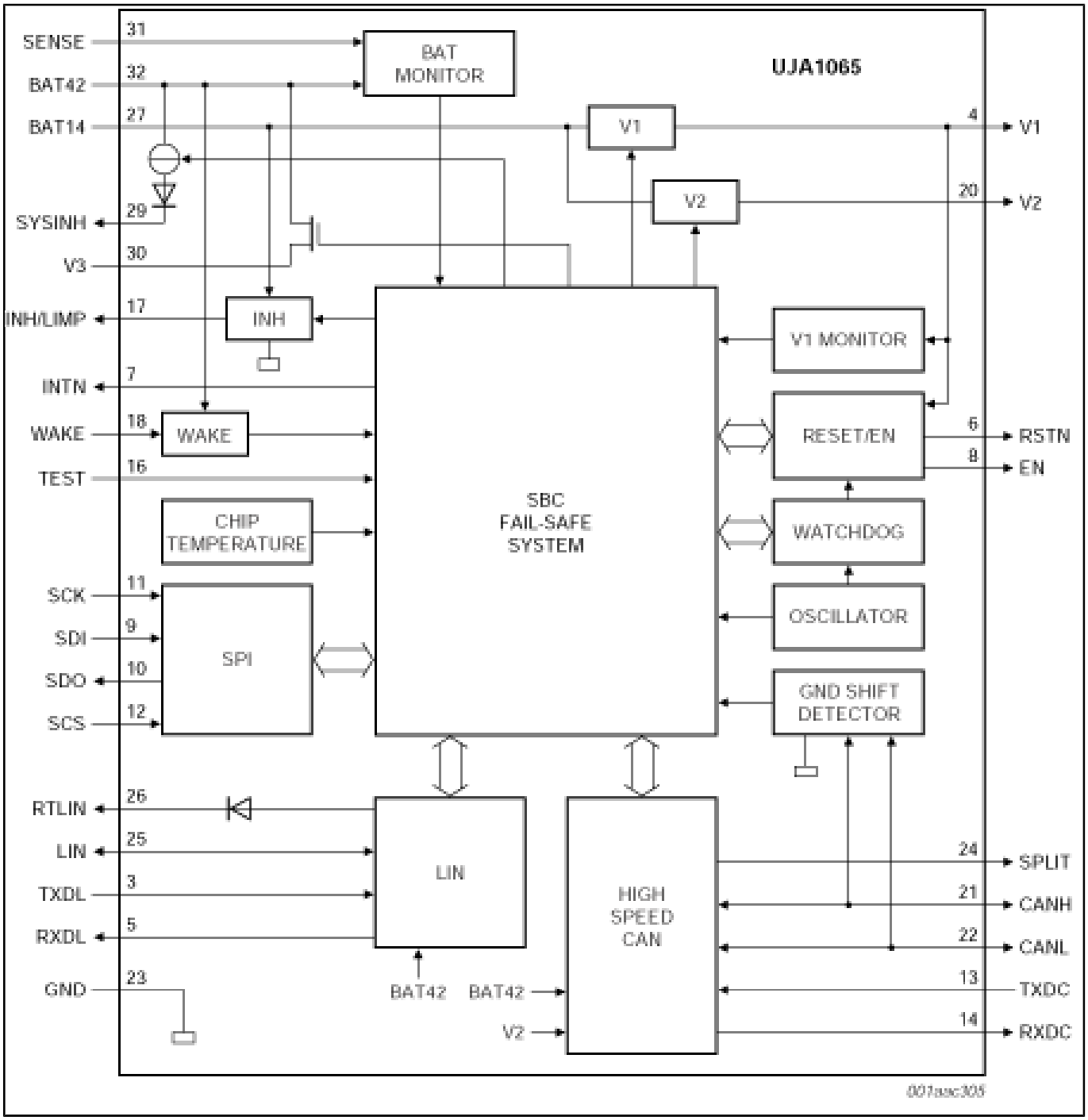
- Advanced low-power concept
- Safe and controlled system start-up behavior
- Advanced fail-safe system behavior that prevents any conceivable deadlock
- Detailed status reporting on system and subsystem levels

The UJA1065 is designed to be used in combination with a microcontroller that incorporates a CAN controller. The fail-safe SBC ensures that the microcontroller is always started up in a

defined manner. In failure situations, the fail-safe SBC will maintain microcontroller functionality for as long as possible to provide full monitoring and a software-driven fall-back operation.

The UJA1065 is designed for 14 V single power supply architectures and for 14 V and 42 V dual power supply architectures.

UJA1065TW CAN/LIN Fail-Safe SBC Block Diagram



View additional information for High-Speed CAN/LIN Fail-Safe System Basis Chip.

Note: The information on this document is subject to change without notice.