



Single-Wire Can Transceiver

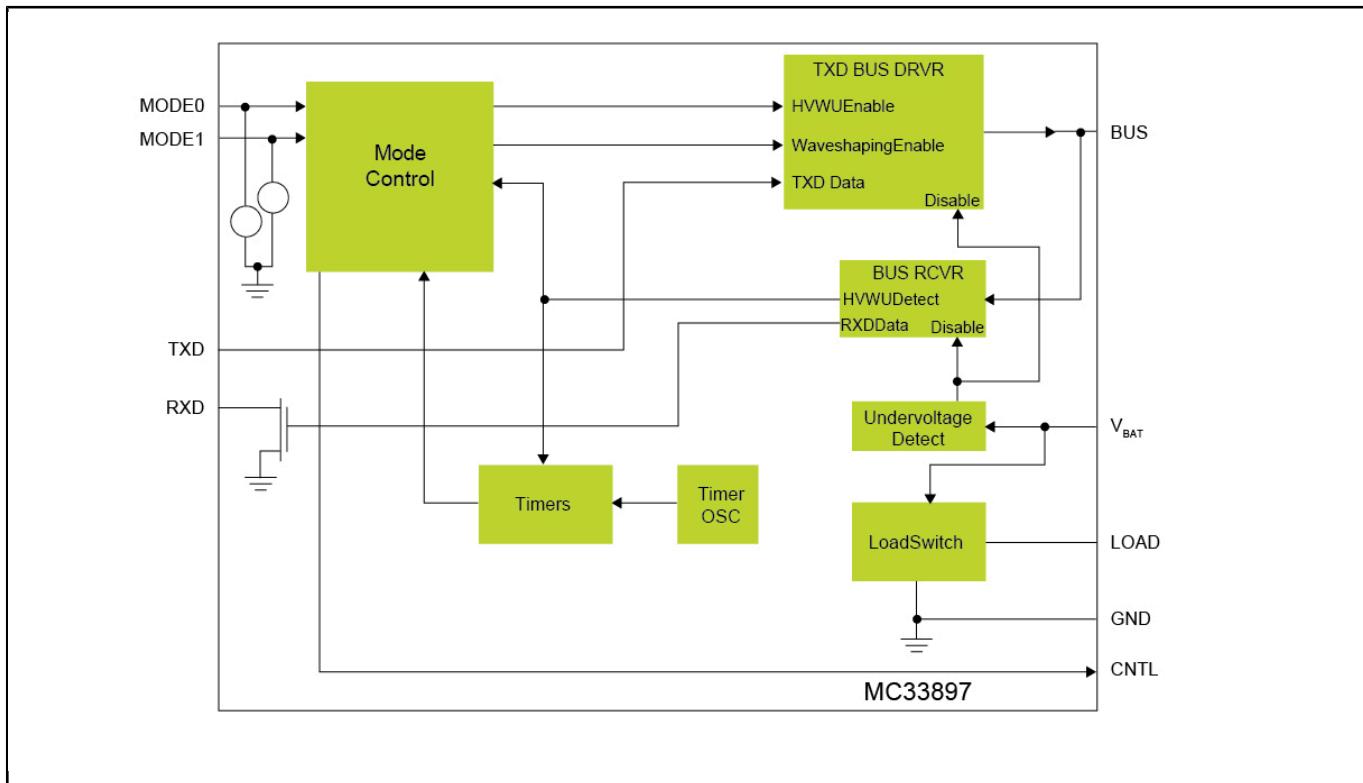
MC33897

Last Updated: Dec 23, 2025

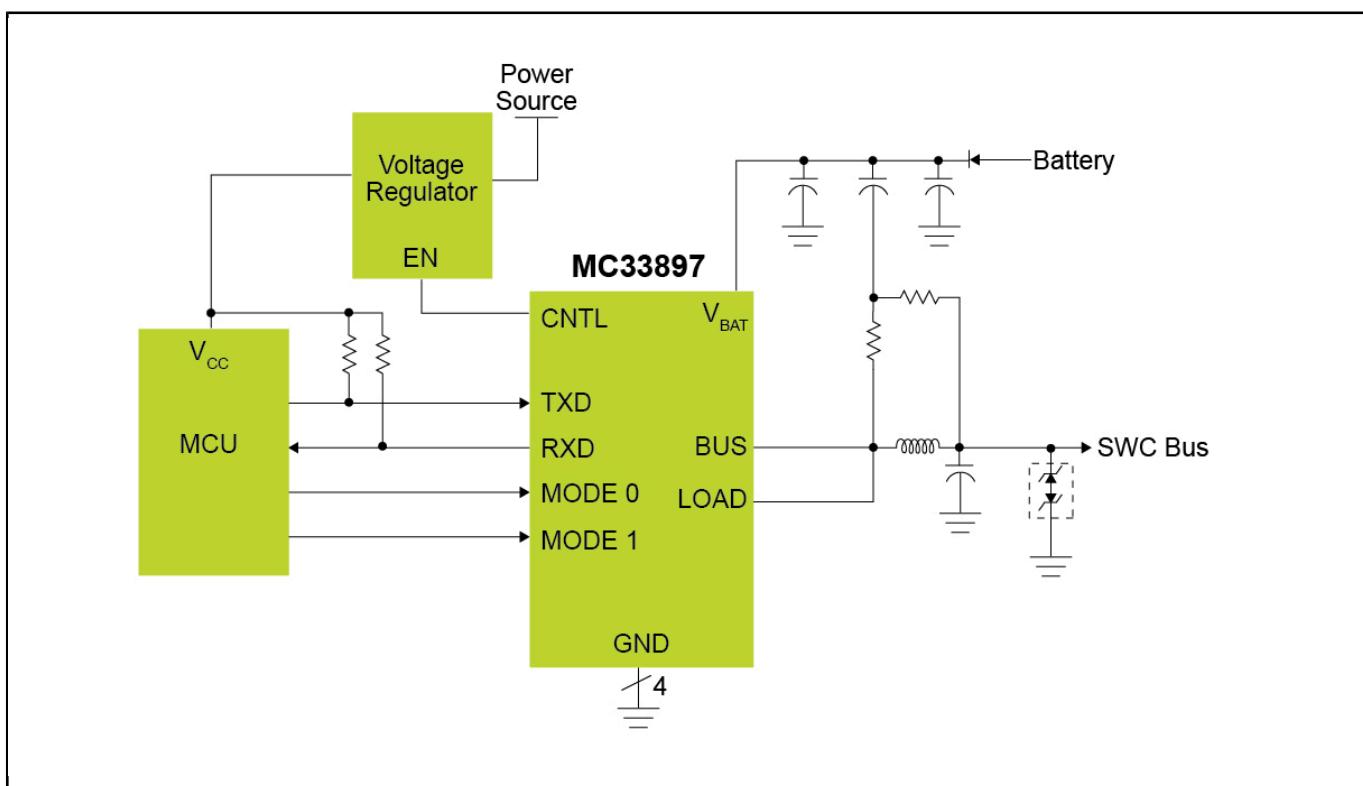
The NXP® MC33897 series provides a physical layer for digital communication using a Carrier Sense Multiple Access/Collision Resolution (CSMA/CR) data link operating over a single wire medium. This is commonly referred to as single-wire Controller Area Network (SWCAN).

- CAN bus operates with a single wire
- Operates directly from a vehicle's 12 V battery system or a broad range of DC-power sources at low or high (33.33 kbps or 83.33 kbps) data rates
- A high-voltage wake-up feature allows the device to control the regulator used in support of the MCU and other logic
- Complies with the GMW3089v2.4 General Motors Corporation specification

MC33897 Block Diagram



MC33897 Application Block Diagram



[View additional information for Single-Wire Can Transceiver.](#)

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

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2026 NXP B.V.