

機能安全を見据えた各種監視機能を内蔵！

Built-in multiple monitoring functions for functional safety



ADAS向け汎用システム電源

General-Purpose Power Supply for ADAS

BD39031MUF-C

Features

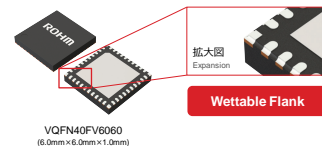
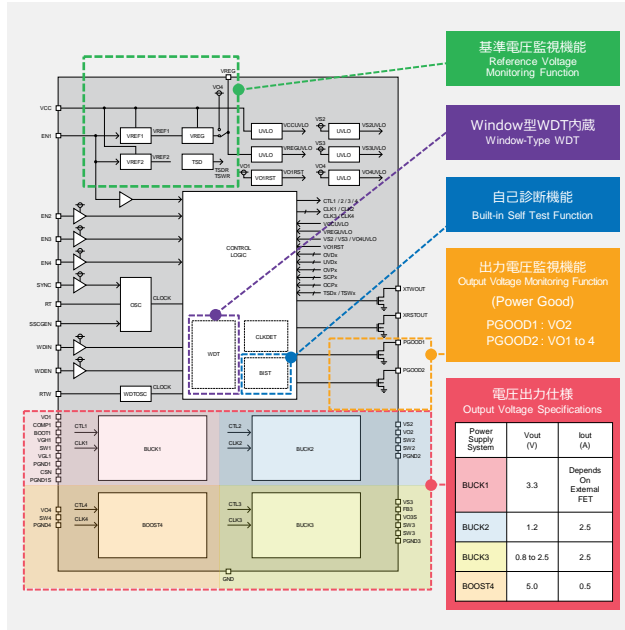
- 4ch電源(降圧:3ch+昇圧:1ch)により様々な電源システムに対応
4ch power supply (3ch buck + 1ch boost) supports a variety of systems
- 入力電圧範囲：4V~28V(最大定格：42V)
動作温度範囲：-40℃~-+125℃
Input voltage range : 4V to 28V (42V Max.)
Operating temperature range : -40°C to +125°C
- MCU監視に最適なWindow型Watch Dog Timer、RESET機能搭載
Built-in Window-type Watch Dog Timer and Reset function to monitor MCU
- 出力電圧監視(Power Good)×2ch搭載
2ch Power Good to monitor output voltage
- BIST(自己診断)機能によりIC内部の潜在的故障を診断
Diagnostic Function : Internal logic will be tested by BIST (Built-in Self Test Function)
- 基準電圧・内部発振器の二重化によりICの安全性向上
Improves system safety by duplicating reference voltage and oscillator
- SSCG機能内蔵によりノイズ対策容易化
Simplified noise measures thanks to integrated SSCG feature
- AEC-Q100対応
AEC-Q100 qualified

Applications

- ADAS全般
(ミリ波レーダモジュール, LiDARモジュール, etc.)
General ADAS (millimeter wave radar / LiDAR modules, etc.)

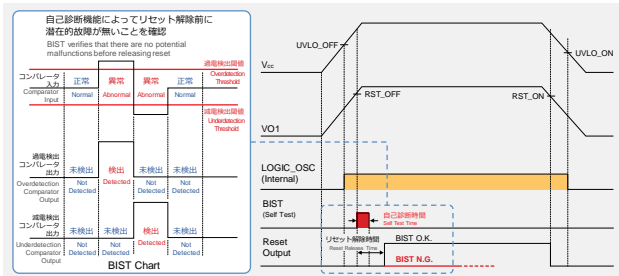
回路ブロック図

Circuit Block Diagram



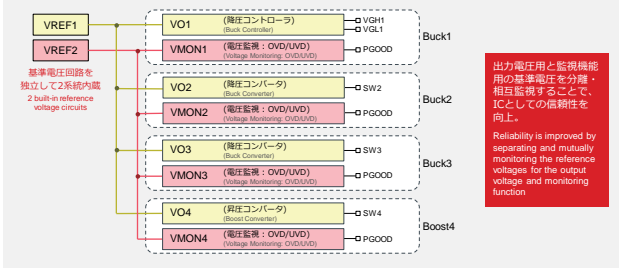
BIST(自己診断)機能

Built-in Self Test Function



基準電圧監視機能

Reference Voltage Monitoring Function



出力電圧用と監視機能用の基準電圧を分離・相互監視することで、ICとしての信頼性を向上。
Reliability is improved by separating and mutually monitoring the reference voltages for the output voltage and monitoring function.