

高速応答技術でセラミックコンデンサ数削減に貢献!

High-speed responsiveness technology contributes to a reduction in ceramic capacitors!

Under
Development

ROHM
SEMICONDUCTOR

車載向けセカンダリ降圧DC/DCコンバータ

For Automotive Secondary Buck DC/DC Converter

BD9S402MUF-C

Features

- 高速負荷応答技術により出力コンデンサ削減
High-speed responsiveness technology allows a reduction in output capacitors
- ローム独自のNano Pulse Control™技術により低電圧0.6Vが出力可能
Low voltage of 0.6V can be outputted, owing to ROHM's proprietary Nano Pulse Control™ technology
- 高精度基準電圧回路内蔵(±1%, Ta=-40°C~+125°C)
High-precision standard voltage circuit built-in (±1%, Ta=-40°C to +125°C)

- AEC-Q100準拠
AEC-Q100 qualified

Applications

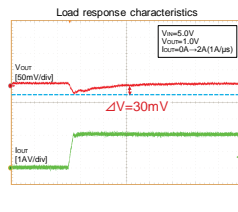
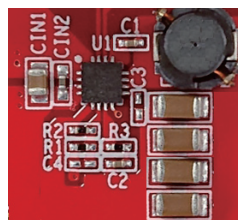
- 車載機器
Automotive systems

- その他電子機器
Other electronic devices

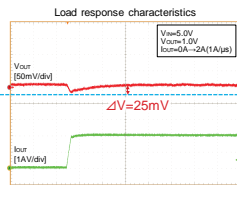
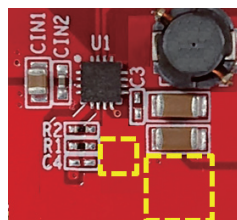
出力コンデンサを1/2に削減

Output capacitors reduced by 1/2

Conventional IC
Co=22μF × 4



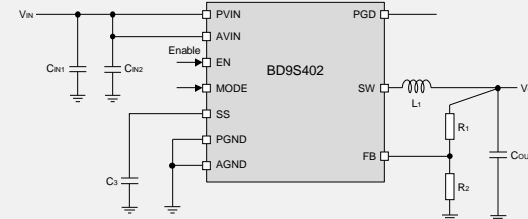
BD9S402MUF-C
Co=22μF × 2



出力コンデンサを1/2に削減しても同等の負荷応答特性を実現!
Output capacitors reduced by 1/2, with equivalent load response characteristics!

アプリケーション回路

Application Circuit Diagram



ラインアップ

Lineup

Series	BD9SxxxNUX-C	BD9Sx00MUF-C	BD9Sx02MUF-C	
V _{IN} (V)	2.7 to 5.5	2.7 to 5.5	2.7 to 5.5	
Freq (MHz)	2.2	2.2	2.2	
V _{OUT} (V)	0.8 to V _{IN}	0.8 to V _{IN} × 0.8	0.6 to V _{IN} × 0.8	
Package	VSON008X2020	VQFN16FV3030	VQFN16FV3030	
Output Current	0.6A	BD9S000NUX-C BD9S012NUX-C (1.1V Fix)	-	
	1A	BD9S100NUX-C BD9S110NUX-C (1.2V Fix) BD9S111NUX-C (1.8V Fix)	-	
	2A	BD9S201NUX-C	BD9S200MUF-C	-
	3A	-	BD9S300MUF-C	BD9S302MUF-C*
	4A	-	BD9S400MUF-C	BD9S402MUF-C*

*High-speed responsiveness technology