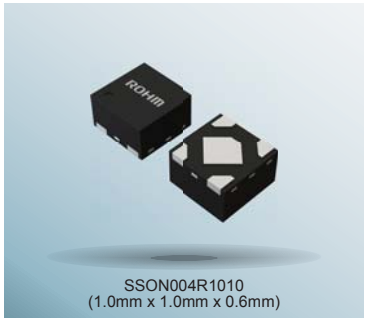
Automotive-grade

Compact Full CMOS LDO Regulators

BUxxJA2MNVX-C Series



SSON004R1010
(1.0mm x 1.0mm x 0.6mm)

The world's smallest* automotive-grade LDOs

Product Outline

The continued integration of cameras, sensor modules, and other devices that collect data in Advanced Driver Assist Systems (ADAS), which are experiencing rapid growth, has demanded increased miniaturization. To meet this need, the BUxxJA2MNVX-C series of 200mA output full CMOS regulators provide automotive-grade reliability in the industry's smallest package (1.0mm x 1.0mm x 0.6mm). In addition, low power consumption with fast response is achieved, making them ideal for ADAS devices, power supplies for car radar/indicators, and similar applications.

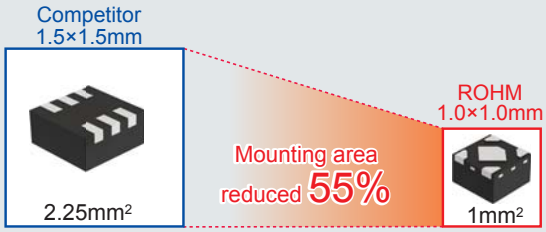
*April 2016 ROHM study

55% smaller mounting area

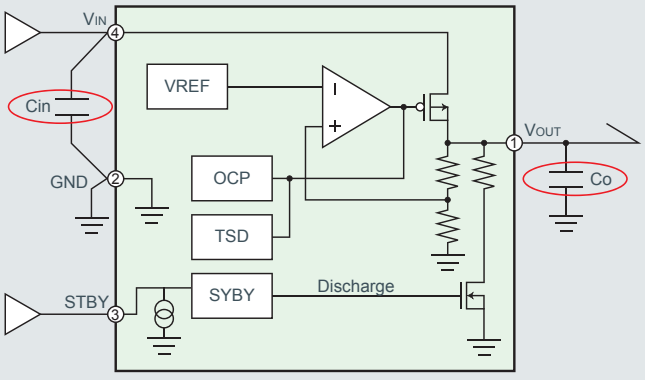
Key Features

- Small 1.0mm x 1.0mm x 0.6mm automotive-grade AEC-Q100 qualified package
- Temperature range: Ta=-40°C to +125°C (Tjmax.=150°C)
- Supports compact ceramic capacitors (0.22µF min.)
- Low current consumption (35µA typ.)
- High ripple rejection (70dB typ.)
- Built-in output discharge circuit
- Integrated overcurrent protection and thermal shutdown functions

Mounting Area (vs. Competitor Automotive-Grade Product)



Block Diagram

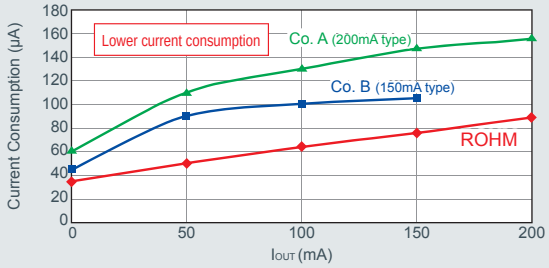


Supports smaller external capacitors

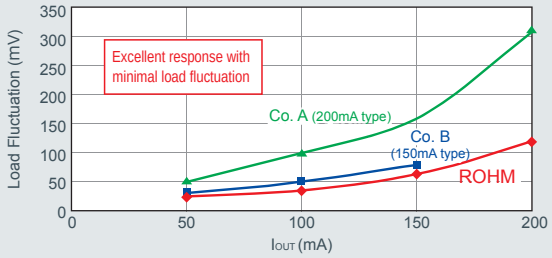
Cin / Co (Ceramic Capacitors) Min.1µF (Conventional) → 0.22µF

Low power and high-speed load response in a compact package

Current Consumption



Response Characteristics During Output Current Fluctuations



Utilizing an amp circuit design based on a reference voltage circuit with depletion MOSFET and original circuit technology allowed ROHM to minimize chip area while simultaneously achieving lower current consumption with high-speed response characteristics.

Lineup

Voltage	1.0V	1.2V	1.25V	1.5V	1.8V	2.5V	2.8V	2.85V	3.0V	3.3V
Model	BU10	BU12	BU1C	BU15	BU18	BU25	BU28	BU2J	BU30	BU33

BUxxJA2MNVX-C
(SSON004R1010)

BUxxJA2VG-C
(SSOP5)

Leaded packages also available

The content specified in this document is correct as of 14th April,2016.

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