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Newsletter 05/2010

Dear Customer,

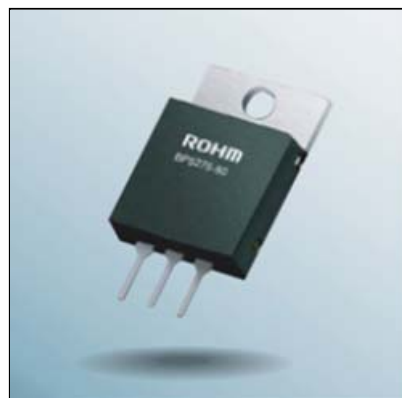
welcome to the May 2010 issue of ROHM Semiconductor Email Newsletter. If you want to change your contact details or if you do not want to receive the Newsletter anymore please use the link at the end of this page.

BP5275 Series: Compact non-isolated 3-pin DC/DC Converter Modules

ROHM Semiconductor has recently announced the development of the BP5275 series of step-down DC/DC converter modules that integrates all required external components, including input and output capacitors, into a compact, high heat dissipation package. It is the ideal solution for a general-purpose power supply in a variety of electronic devices.

Currently, multiple LDOs, switching regulators, and numerous other electrical components are required in order to provide a stable electrical power to internal circuits. However, the relatively large amount of heat generated by each component requires separate heat sinks or additional substrates to facilitate heat dissipation, making miniaturization difficult. Also, multiple tedious circuit design processes, including selection of external components based on phase compensation, FET voltage, and heat dissipation characteristics are necessary, increasing development time and costs.

In response to this, the BP5275 series was developed, utilizing an in-house high-frequency (1.5MHz) switching regulator IC and synchronous rectification system for high efficiency operation. As a result, mounting area is reduced to 1/6th of the conventional size. The new high-heat-dissipation package enables direct heat dissipation from the element to an aluminium heat sink. An external heat sink can be mounted, increasing output current capability to 800mA. In addition, the 3-terminal, pin-compatible configuration makes it possible to achieve major increases in power supply efficiency without requiring comprehensive modifications.



The line-up includes four types with different output voltages (1.8V to 5.0V), making it possible to select the ideal solution based on the requirements.

Some of the key features are:

- * All required components are integrated into a single package, including input/output capacitors, eliminating the need for external components
- * High efficiency up to 93% (synchronous rectification)
- * No thermal design required
- * Space saving design and pin compatible with 3-pin LDOs
- * Max. input voltage: 15V
- * Output voltages: 5.0V, 3.3V, 2.5V, 1.8V
- * Max. output current: 500mA (800mA with external heat sink)
- * Very easy circuit design

[More Information on www.rohmeurope.com](http://www.rohmeurope.com)

Ultra-Compact (MSOP8) Automotive-Grade SPI Bus EEPROMs

ROHM Semiconductor has recently announced the development of the BR35Hxxx series of SPI bus EEPROMs optimized for various on-board ECUs, such as ABS, automatic transmission, and airbags. A high degree of reliability has been achieved in an ultra-compact package, with operation guaranteed up to 125°C.

The integration of electronics in cars has shown a marked increase in recent years. Today's vehicles now feature multiple ECUs in a variety of systems. Technological advancements have resulted in more sophisticated control, increasing the amount of information required. As a result, the scale of electronic circuits has expanded dramatically, along with the number of EEPROMs used, primarily for malfunction diagnosis and recording status information. The increased board density required due to the proliferation of electronics demands faster, higher capacity EEPROMs in a smaller form factor.

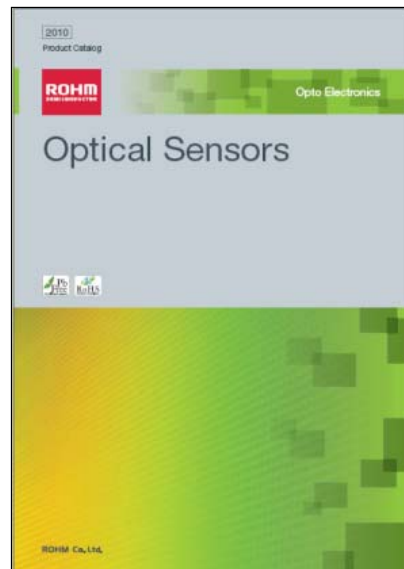
In response to this, ROHM offers the BR35Hxxx series of SPI bus EEPROMs in the compact MSOP8 package, featuring a chip area 60% smaller than conventional standard products (SOP8). This new series features a number of advantages over conventional products in order to meet the various demands of today's sophisticated systems, including: 1. a unique double cell structure that eliminates accidental malfunctions caused by incidental devices degradation, 2. a built-in double reset circuit that prevents erroneous writing, even during unstable battery supply, and 3. an ESD resistance of 6kV (HBM), ensuring high strength against electrostatic surge voltages. A broad lineup is available in a wide range of capacities, interfaces, and package types.

[More Information on www.rohmeurope.com](http://www.rohmeurope.com)

The advertisement features the ROHM logo at the top left, along with RoHS and Pb-Free logos. The main title is "High Reliability EEPROM SERIES For Automotive". Below this, it states "Featuring ROHM's market-proven reliability". A central image shows a red car with various callouts pointing to different components: "Water Microcontroller Type 24C02", "Engine Control Microcontroller Type 24C02", "HMI Microcontroller Type 24C02", "ABS Microcontroller Type 24C02", "Air Bag Microcontroller Type 24C02", "Microcontroller Type 24C02", "Brake System Microcontroller Type 24C02", and "Power Steering Microcontroller Type 24C02". Below the car, there are three key features listed: 1. Double cell technology ensures zero accidental failures; 2. Safe, streamlined production; 3. Universally compliant. The bottom of the ad includes the website address: www.rohm.com/products/isl/eprom/.

ROHM Semiconductor optical sensors are designed to meet a variety of sensing needs. The integrated manufacturing process, from die fabrication to final assembly, enables a wide degree of customization and ensures unsurpassed reliability.

 **[More Information on www.rohmeurope.com](http://www.rohmeurope.com)**



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