

Fujitsu has launched 128 Kbit/256 Kbit FRAM Guaranteed to Operate up to 125°C

Optimal for applications in automobiles and industrial machinery that require high reliability in high-temperature environments

Yokohama, Japan, May 10, 2017 – Fujitsu Semiconductor Limited today announced that it has developed the MB85RS128TY, a 128 Kbit FRAM, and the MB85RS256TY, a 256 Kbit FRAM. Both parts are capable of operating up to 125°C, a first for Fujitsu's family of FRAM non-volatile memory. Evaluation samples are currently available, with mass-production expected to be in July.

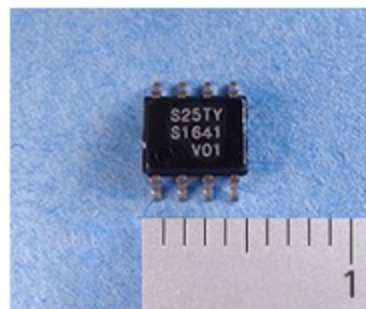
Fujitsu Semiconductor is strengthening its FRAM product lineup with these two new products. Both products feature an SPI interface, a wide power supply voltage range from 1.8V to 3.6V, and operating temperature up to 125°C.

As memory guaranteed for ten trillion read/write cycles across its full temperature range, these products are optimal for applications such as automotive equipment and industrial machinery with motors.

For over 18 years Fujitsu Semiconductor has mass-produced FRAM non-volatile memory products featuring high-speed write operation, high read/write endurance, and low power consumption. In recent years these products have been successfully adopted in wearable devices, industrial robots, and drones.



Recently there has been increased demand for electronic components with low power consumption for battery-powered devices such as wearables. There is also a demand for electronic components that are guaranteed to operate even in the high-temperature environments necessary for applications involving motors, as these machines reach high temperatures due to the heat generation of the motors. Example applications are automobiles and industrial robots.



MB85RS256TY in 8-pin SOP

In order to meet the requirement of customers looking for memory guaranteed to operate in high temperature environment, Fujitsu Semiconductor has launched two products, the MB85RS128TY and MB85RS256TY, that can operate up to 125°C, extending the upper limit on operating temperature by 40°C from existing products.

The two products operate at a maximum frequency of 33MHz through an SPI interface, with a wide power supply voltage range from 1.8V to 3.6V. They are guaranteed for ten trillion read/write endurance even in environments of 125°C. The reliability testing for these products is also compliant to AEC-Q100 Grade 1, a qualification requirement for a product to be called "automotive grade."

Fujitsu Semiconductor's FRAM products have been highly evaluated for high-speed write operation and high read/write endurance, and have been adopted in the industrial machinery field worldwide. Moreover, Fujitsu Semiconductor has taken the first step in offering high-temperature and high reliability FRAM products to applications, such as the automotive field and the industrial machinery field.

Fujitsu Semiconductor will continue to offer products and solutions to improve the value and convenience of customer applications.

Key Specifications

- Part Number: MB85RS128TY, MB85RS256TY
- Density (configuration): 128Kbit (16K x 8 bit) for MB85RS128TY
256Kbit (32K x 8 bit) for MB85RS256TY
- Interface: SPI (Serial Peripheral Interface)
- Operating frequency: 33MHz
- Operating voltage: 1.8V to 3.6V
- Operating temperature range: -40°C to +125°C
- Read/Write endurance: 10 trillion times (10¹³ times)
- Package: 8 pin SOP
- Qualification standard: AEC-Q100 Grade 1 compliant

Related Links

- [Fujitsu Semiconductor Top page](#)
- [FRAM Top page](#)
- [128 Kbit FRAM "MB85RS128TY" datasheet \(2.09 MB\)](#)
- [256 Kbit FRAM "MB85RS256TY" datasheet](#)