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Changes for the Better

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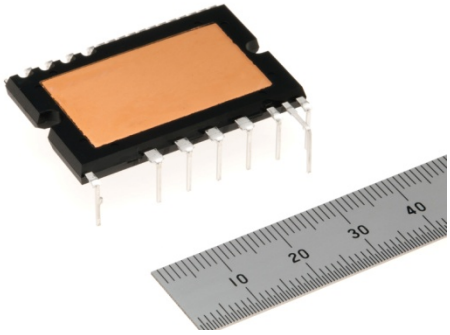
Mitsubishi Electric to Launch Super-mini Full SiC DIPIPM

Optimal low power solution for high-grade energy-efficient air conditioners

TOKYO, August 17, 2016 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today the launch of a new transfer-mold power semiconductor model in its lineup of Super-mini Dual-In-line Package Intelligent Power Modules (DIPIPM™), embedded with Silicon Carbide Metal-Oxide-Semiconductor Field-Effect Transistors (SiC-MOSFET). It will launch on August 17.



Super-mini Full SiC DIPIPM

Product Features

1) Top class low power consumption in the home appliance market

- SiC-MOSFET reduces power consumption by about 70 percent compared with Mitsubishi Electric's existing Super-mini DIPIPM, and contributes to an overall reduction in air conditioner power consumption

2) Simplified inverter system design

- Footprint and pin configurations are compatible with Mitsubishi Electric's existing Super mini DIPIPM Ver.6, PSSxxS92x6series,etc.
- Designed with a high threshold voltage, SiC-MOSFET does not require a negative bias circuit, allowing simplification of the system design
- Fewer external components due to use of embedded bootstrap diode with current-limiting resistor

Sales Schedule

Model	Specification	Shipment
PSF15S92F6	15A/600V	August 17, 2016

Main Specifications

Model	**PSF15S92F6**
Specification	15A/600V
Dimensions	24.0×38.0×3.5 mm (same as Super-mini DIPIPM Ver.5/Ver.6 series, Super-mini DIPIPM embedded with SJ-MOSFET)
Built-in chips	Three-phase inverter bridge with built-in SiC-MOSFET, HVIC, LVIC and bootstrap diode chips
Functions	Short-circuit protection with external shunt resistor Control power-supply under-voltage protection: Fo output on N-side protection Analog temperature voltage output function
Other	Inverter with divided-emitter N-side (3 shunts)

In 1997, Mitsubishi Electric commercialized its first DIPIPM transfer-mold intelligent power semiconductor module, contributing significantly to inverter system downsizing and energy savings. Reflecting growing environmental awareness and increased demand for energy savings, especially in the Japanese market, consumers are increasingly choosing air conditioners that offer high power efficiency. In response, Mitsubishi Electric is launching a new lineup of DIPIPM embedded with SiC-MOSFET, offering improved power consumption for the air conditioner.

Environmental Awareness

The product is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive 2011/65/EU.

Note: Development of this DIPIPM has been partially supported by Japan's New Energy and Industrial Technology Development Organization (NEDO).

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About Mitsubishi Electric Corporation

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,394.3 billion yen (US$ 38.8 billion*) in the fiscal year ended March 31, 2016. For more information visit:
http://www.MitsubishiElectric.com

*At an exchange rate of 113 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2016