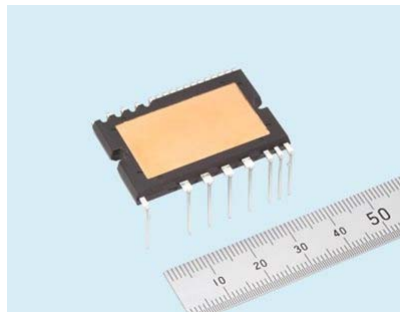


## Mitsubishi Electric to Launch Super-mini Full SiC DIPFPC Module 7/16/2014

### Mitsubishi Electric to Launch Super-mini Full SiC DIPFPC Module

Mitsubishi Electric Corporation (TOKYO: 6503) announced today the immediate launch of a transfer-molded super-mini dual in-line package power factor correction (DIPPFCTM) module incorporating silicon carbide (SiC) transistors and diodes, which is expected to help reduce the power consumption and size of home appliances.

Mitsubishi Electric's new DIPFPC module will be exhibited at MOTORTECH JAPAN 2014 during TECHNO-FRONTIER 2014, which will be held at Tokyo Big Sight in Japan from July 23 to 25.



Full SiC DIPFPC for home appliances

### **Product Features**

#### **1) SiC contributes to lower power consumption and compact size**

- Power loss is reduced by about 45% compared to silicon (Si) products, contributing to improved energy conversion.
- SiC schottky-barrier diode (SBD) reduces recovery current power consumption and electromagnetic interference noise.
- SiC metal oxide semiconductor field effect transistor (MOSFET) achieves maximum 40kHz high-frequency switching and contributes to downsizing of peripheral components, such as reactors and heat sinks.
- Power factor correction (PFC) and driving IC contribute to downsizing by reducing mounting surface area and simplifying wiring.

#### **2) Simplified design for inverter systems**

- Adoption of the same package as the dual in-line package intelligent power module (DIIPMTM) simplifies the installation of heat sinks.
- Interleave method for PFC decreases the ripple current and simplifies the noise filter circuit.

### **Environmental Awareness**

Mitsubishi Electric's new full-SiC DIPFPC module is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

### **Sale Schedule**

Model	Specification	Shipment
PSF20L91A6-A	20Arms / 600V	July 16, 2014

## **Main Specifications**

Model	PSF20L91A6-A
Specification	20Arms/600V
Dimensions	24.0 x 38.0 x 3.5mm
Built-in chips	PFC circuit comprising two SiC-MOSFETs, two SiC-SBDs and one LVIC chip
Other functions	Short circuit protection (using external shunt resistor). Control power supply under-voltage (UV) protection: Fo output on N-side protection.

Mitsubishi Electric commercialized its first DIIPM transfer-molded intelligent power module in 1997 and over the years has contributed greatly to miniaturization and energy-savings in inverter systems. The technology has gained increased importance because annual power consumption has become an important index of energy savings in consumer appliances, such as air conditioners.

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

## **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