

## ■ Greenbond Issuance Overview

<b>Name of Corporate Bonds</b>	The 46th Issuer of Unsecured Straight Bonds(with inter-bond pari passu clause) (Green Bond)	The 47th Issuer of Unsecured Straight Bonds(with inter-bond pari passu clause) (Green Bond)
<b>Maturity</b>	3 Years	5 Years
<b>Issuance Amount</b>	20,000 million yen	30,000 million yen
<b>Date of Maturity</b>	December 18, 2026	December 18, 2028
<b>Interest Rate</b>	0.400%	0.558%
<b>Use of Proceeds</b>	Capital expenditure for construction of new factory and installation of facility,that will consolidate existing operations,in Shisui district, Kumamoto Prefecture,as a SiC Power semiconductor manufactuaring investment.	
<b>Date of Coupon Payment</b>	Every June 18 & December 18	
<b>Payment Due (Issue Date)</b>	December 18, 2023	
<b>Credit Rating</b>	AA- (Rating & Investment Information, Inc.)	
<b>Second Opinion Provider</b>	Rating & Investment Information, Inc.	

## <The 46th / 47th Issuer of Unsecured Straight Bonds (Green Bond) Allocation>

### Allocation Reporting

(Million Yen)

Total ammount of Issue	Issuance Fee	Bond Proceeds
50,000	155	49,845

(Million Yen)

Eligible Project	Outline of Project	Allocated Amount (April 2023 ~ March 2024)	Unallocated Amount
Capital investment, R&D, investments & financing related to the manufacture of silicon carbide (SiC) power semiconductor	Capital expenditure for onstruction of development / experimental line and quantity production line for launch of SiC power semiconductor production system.	654	49,191
<b>Total</b>		<b>654</b>	<b>49,191</b>

(Million Yen)

New Investment / Refinancing	Amount	Percentage(%)
New Investment	654	100%
Refinancing	0	0%
<b>Total</b>	<b>654</b>	<b>100%</b>

**◆ Domestic Unsecured Straight Bonds (Green Bonds) Eligible Projects Related  
Ground-breaking Ceremony Takes Place at a New 8-inch Silicon-carbide (SiC) Wafer Plant Site in Shisui District, Kumamoto Prefecture (March 13, 2024)**

The ground-breaking ceremony took place in the site of a new 8-inch SiC wafer plant (in Shisui district, Kumamoto Prefecture) on March 13, 2024. The construction of the new building is progressing smoothly, and now expected to be completed in September 2025, earlier than initially planned.

The new plant will take advantage of our existing business site in the Shisui district of the Kumamoto Prefecture. It is expected to be able to produce large-diameter (8-inch) SiC wafers in the wafer processing (front-end) process of SiC power semiconductor products. Furthermore, the new plant will have a clean room featuring state-of-the-art energy efficiency. Thoroughly automated manufacturing processes will ensure high-level production efficiency. The reporting items defined in the framework will be implemented after the completion of the new plant building construction.



Ground-breaking ceremony at the new 8-inch SiC wafer plant site (Shisui district, Kumamoto Prefecture)



Image of a new 8-inch SiC wafer plant

## ◆SiC Power Semiconductor-related Information

### 1. J3-Series SiC and Si Power Module Samples Released for xEVs

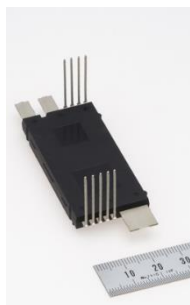
Mitsubishi Electric announced on January 23, 2024, the release of six new J3-Series power semiconductor modules for use in driving the inverters of electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEVs), starting on March 25, 2024. The news was featured by a number of mass media both in Japan and overseas. A newly developed J3 transfer molded power module (J3-T-PM) features either SiC-MOSFET\*<sup>1</sup> or RC-IGBT (Si)\*<sup>2</sup>. Through various J3-T-PM combinations, the J3 Series products offer a comprehensive lineup to suit various designs for xEV inverters.

Additionally, the trench SiC-MOSFET combines low loss and high-speed drive, enabling smaller inverters with less power loss, resulting in EVs and PHEVs offering extended range and lower electricity costs. It is thus expected to help the dissemination of xEVs further.

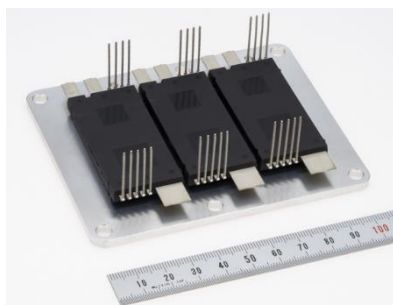
Development of these SiC products was partially supported by the fruits of commissioned research by Japan's New Energy and Industrial Technology Development Organization (NEDO).

\*1 SiC: Silicon Carbide MOSFET: Metal Oxide Semiconductor Field Effect Transistor

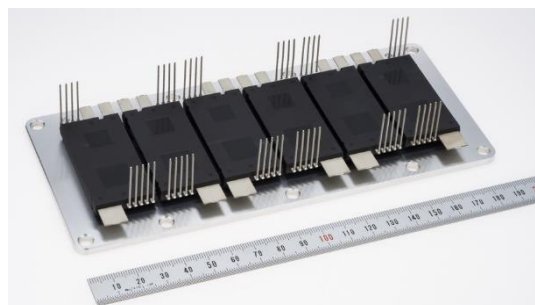
\*2 RC-IGBT: Reverse conducting IGBT, with one IGBT and one diode on a single chip



J3-T-PM



J3-HEXA-S



J3-HEXA-L

➤ [News Release \(Published on January 23, 2024\)](#)

### 2. SiC Power Semiconductors Exhibited in “SEMICON Japan 2024,” “38th NEPCON JAPAN -Electronics Development and Packaging Exhibition-,” and “APEC 2024”

Mitsubishi Electric's SiC wafers and SiC power semiconductor products were exhibited at the “SEMICON Japan 2024,” which was held at Tokyo Big Sight from December 13 to 15, 2023, as well as at the “38th NEPCON JAPAN -Electronics Development and Packaging Exhibition-“ held at Tokyo Big Sight from January 24 to 26, 2024, and the “APEC (IEEE Applied Power Electronics Conference and Exposition) 2024,” which took place in the USA from February 25 to 29, 2024. Through these occasions, many customers were introduced to the products.



Exhibited at “SEMICON Japan 2024”



Exhibited at “38th NEPCON JAPAN “

### 3. “Power Devices,” March Issue of Mitsubishi Electric Technical Reports, Published (Available only in Japanese Language)

“Mitsubishi Electric Technical Reports (ADVANCE Magazine)” is a collection of technical papers, which introduces Mitsubishi Electric’s cutting-edge technologies and products in the form of articles.

In the March issue, the latest technological trends and products were presented, with focus on the prospects of Mitsubishi Electric’s power semiconductors in light of features required in each field, as well as SiC power semiconductors.



➤ [March 2024 Issue of Mitsubishi Electric Technical Reports](#)  
 (Available only in Japanese Language)

### 4. “True Ability of Power Semiconductors that Support Carbon Neutrality” Posted on the Synergy Column of the Mitsubishi Electric Business Portal “Biz Timeline” in January 2024 (Available only in Japanese Language)

The roles of power semiconductors and the advantages of Mitsubishi Electric’s SiC power semiconductors were presented in the synergy column of the Mitsubishi Electric’s business portal, “Biz Timeline.” This website is designed to transmit news and information on what is trending in Mitsubishi Electric’s BtoB businesses. The article appeared under the title of “True Ability of Power Semiconductors that Support Carbon Neutrality.”



➤ [Synergy Column in Biz Timeline -Power Semiconductors-](#) (Available only in Japanese Language)