



DB HiTek Completes Reliability Qualification for 8-Inch 1,200 V SiC MOSFET Process

Descrizione

COMUNICATO STAMPA - CONTENUTO PROMOZIONALE

SEOUL, South Korea, Sept. 9, 2026 /PRNewswire/ - DB HiTek, South Korea's leading pure-play 8-inch foundry, announced that it has successfully completed reliability qualification for its 1,200 V silicon carbide (SiC) MOSFET process on 8-inch (200 mm) wafers. This achievement marks a step in the company's expansion into the 8-inch SiC foundry market, with volume production targeted for 2027. Building on the completion of this qualification, DB HiTek plans to strengthen product development support for customers, secure new customers and accelerate preparations for volume production in 2027.

Silicon carbide (SiC) is a next-generation power semiconductor material that offers superior performance to conventional silicon (Si) in high-temperature and high-voltage environments, making it well suited for electric vehicles (EVs), renewable energy systems and industrial power equipment. While 6-inch wafers currently dominate the SiC market, major global semiconductor manufacturers are transitioning to 8-inch wafers to improve production efficiency and cost competitiveness. DB HiTek has responded to this market transition by developing 8-inch SiC process technology and building its foundry service capabilities.

Through optimization of its high-power SiC MOSFET process, DB HiTek has achieved competitive electrical characteristics and a high level of reliability. The company has established the world's first complete 1,200 V 8-inch SiC foundry process flow, creating a foundry service platform capable of supporting customers across design, manufacturing, electrical characterization and reliability qualification.

To support the commercial rollout of its 8-inch SiC foundry business, DB HiTek is providing customers with Process Design Kits (PDKs) for its proprietary first-and second-generation 1,200 V SiC MOSFET processes. A third-generation PDK is scheduled for release this November. By using these PDKs,

customers can reduce the resources required during the initial stages of development, accelerate prototype fabrication and shorten product development time by more than a year.

The second-generation process covered by the PDK achieves a specific on-resistance (R_{sp}) of $2.5 \text{ m}\Omega/\text{cm}^2$ or less and a threshold voltage (V_{th}) of 3 V or higher at an on-state gate voltage ($V_{gs(on)}$) of 18 V. It has also completed reliability qualification, a demanding stage of process development.

The third-generation process, scheduled for release in November, is being qualified with the goal of achieving a specific on-resistance of $2.3 \text{ m}\Omega/\text{cm}^2$ or less at the same on-state gate voltage of 18 V, together with a short-circuit withstand time (SCWT) of at least 2.5 μs in the short-circuit safe operating area (SCSOA). Once qualification is complete, DB HiTek plans to make the third-generation PDK available to customers.

DB HiTek plans to complete process preparations and provide access to longstanding customers in the third quarter of this year. The company plans to make the service available to all customers beginning in the second quarter of 2027.

“The completion of reliability qualification for our 1,200 V SiC MOSFET process is significant because it demonstrates that we have secured the core process technology and manufacturing foundation required to provide the world’s first 8-inch SiC foundry service,” said a DB HiTek representative. “We will continue preparing for 8-inch SiC volume production in 2027, with the aim of establishing a position in the market and strengthening our competitiveness in the next-generation power semiconductor foundry sector.”

View original content to download multimedia:<https://www.prnewswire.co.uk/news-releases/db-hitek-completes-reliability-qualification-for-8-inch-1-200-v-sic-mosfet-process-302871084.html>

Copyright 2026 PR Newswire. All Rights Reserved.

COMUNICATO STAMPA – CONTENUTO PROMOZIONALE: Immediapress è un servizio di diffusione di comunicati stampa in testo originale redatto direttamente dall’ente che lo emette. Adnkronos e Immediapress non sono responsabili per i contenuti dei comunicati trasmessi

–

[immediapress/pr-newswire](https://www.immediapress/pr-newswire)

Categoria

1. Comunicati

Tag

1. ImmediaPress

Data di creazione

Settembre 9, 2026

Autore

redazione

default watermark