

**FOR IMMEDIATE RELEASE**

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## **Alpha and Omega Semiconductor Introduces Gen3 1200V $\alpha$ SiC MOSFETs Designed to Maximize Efficiency in High Power Applications**

**SUNNYVALE, Calif., May 1, 2025** – [Alpha and Omega Semiconductor Limited](#) (AOS) (Nasdaq: AOSL) a designer, developer, and global supplier of a broad range of discrete power devices, wide bandgap power devices, power management ICs, and modules, today introduced the company's next generation (Gen3) 1200V  [\$\alpha\$ SiC MOSFETs](#) designed to maximize efficiency in a growing market of high power applications. These Gen3 MOSFETs provide up to 30 percent improved switching figure-of-merit (FOM) compared to AOS' previous generation while maintaining low conduction losses at high load conditions. The performance improvements do not compromise ruggedness and reliability, as the Gen3 MOSFETs have full AEC-Q101 qualification, with extended lifetime and HV-H3TRB capabilities.

As power demands surge in electric vehicles (EVs), AI data centers, and renewable energy systems, inefficiencies in power conversion stages can significantly strain electrical supply and cooling systems. For EV designs, AOS' Gen3  $\alpha$ SiC MOSFETs enable engineers to create higher power density systems with greater efficiency, reducing battery consumption and extending vehicle range. Future AI data centers adopting high-voltage DC (HVDC) architectures, such as 800V or  $\pm 400$ V, will benefit from reduced losses and increased power density to meet growing power requirements. To support these higher system voltages, AOS' Gen3 1200V devices will be critical for enabling new topologies with the necessary efficiency.

The new AOS Gen3 1200V MOSFETs are available with an on-resistance ( $R_{ds(on)}$ ) range from 15mOhm (AOM015V120X3Q) to 40mOhm (AOM040V120X3Q) in a TO27-4L package. AOS plans to roll out its Gen3 MOSFETs in additional surface mount and topside cooled packages as well as in case modules. AOS has also qualified a larger Gen3 1200V/11mOhm MOSFET die designed for high-power EV traction inverter modules and is available for wafer sales.

"Electric vehicles and AI are transforming industries, but they require advanced power systems that can maintain efficiency even as energy demands increase," said David Sheridan, Vice President of Wide Bandgap products at AOS. "We're excited that this next generation of AOS  $\alpha$ SiC MOSFETs can deliver the performance our customers require while making a positive environmental impact."

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## Technical Highlights

- Automotive AEC-Q101 Qualified
- Wide compatibility of gate drive voltages (+15V to +18V)
- Up to 30% improved switching FOM
- Extended HV-H3TRB compliant
- Improved UIS and Short Circuit Capability

## Pricing and Availability

Please contact your local sales representative for sample availability and pricing.

## About AOS

Alpha and Omega Semiconductor Limited, or [AOS](#), is a designer, developer, and global supplier of a broad range of discrete power devices, wide bandgap power devices, power management ICs, and modules, including a wide portfolio of [Power MOSFET](#), [SiC](#), [IGBT](#), [IPM](#), [TVS](#), [HV Gate Drivers](#), [Power IC](#), and [Digital Power](#) products. AOS has developed extensive intellectual property and technical knowledge that encompasses the latest advancements in the power semiconductor industry, which enables us to introduce innovative products to address the increasingly complex power requirements of advanced electronics. AOS differentiates itself by integrating its Discrete and IC semiconductor process technology, product design, and advanced packaging know-how to develop high-performance power management solutions. AOS' portfolio of products targets high-volume applications, including personal computers, graphics cards, data centers, AI servers, smartphones, consumer and industrial motor controls, TVs, lighting, automotive electronics, and power supply units for various equipment. For more information, please visit [www.aosmd.com](http://www.aosmd.com).

## Forward-Looking Statements

This press release contains forward-looking statements that are based on current expectations, estimates, forecasts, and projections of future performance based on management's judgment, beliefs, current trends, and anticipated product performance. These forward-looking statements include, without limitation, references to the efficiency and capability of new products and the potential to expand into new markets. Forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from those contained in the forward-looking statements. These factors include but are not limited to, the actual product performance in volume production, the quality and reliability of the product, our ability to achieve design wins, the general business and economic conditions, the state of the semiconductor industry, and other risks as described in the Company's annual report and other filings with the U.S. Securities and Exchange Commission. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, level of activity, performance, or achievements. You should not place undue reliance on these forward-looking statements. All information provided in this press release is as of today's date unless otherwise stated, and AOS undertakes no duty to update such information except as required under applicable law.

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