

FOR IMMEDIATE RELEASE

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Alpha and Omega Semiconductor Releases New 1200V α SiC MOSFETs

Optimized temperature and switching behavior for high-efficiency applications

SUNNYVALE, Calif., May 19, 2020 – [Alpha and Omega Semiconductor Limited](#) (AOS) (Nasdaq: AOSL) a designer, developer and global supplier of a broad range of power semiconductors and power ICs, today announced the release of the new 1200V silicon carbide (SiC) α SiC MOSFET technology platform. Specifically targeting the industrial and automotive market, this next-generation technology will enable customers to achieve higher levels of efficiency and power density compared to existing silicon solutions.

Optimized for minimizing both AC and DC power losses through a low gate resistance (R_G) design combined with the low increase in on-resistance ($R_{DS,ON}$) over temperature, the α SiC technology can achieve the highest efficiencies across a wide range of application switching frequencies and temperatures. This higher efficiency can result in significantly reduced system costs and total bill-of-materials for the many industrial uses, including solar inverters, UPS systems, and EV inverter and charging systems.

The first product release for this new platform is the [AOK065V120X2](#), a 1200V 65m Ω SiC MOSFET available in a TO-247-3L package. For ease of use, the AOK065V120X2 is designed to be driven with a -5V/+15V gate drive, allowing the broadest compatibility with existing high voltage IGBT and SiC gate drivers. Operation with a unipolar drive is also possible with optimized system design. Additional benefits of the α SiC platform is a robust UIS capability, enhanced short circuit performance, and a high maximum operating temperature of 175°C.

“After years of development work, we are excited to add this new next-generation SiC MOSFET technology to Alpha and Omega’s existing class-leading Si MOSFET and IGBT portfolio. Adding to our previously released 650V GaN platform, the α SiC devices further expand our positioning for the projected multi-billion dollar wide bandgap power semiconductor market. We are committed to providing the optimal technology solution for each customer’s needs,” said David Sheridan, Sr. Director of Wide Bandgap Products at AOS.

The α SiC MOSFET portfolio will expand later this year to include a broader range of on-resistance and additional package options with full AEC-Q101 qualification.

Pricing and Availability

As part of the first wave release, the [AOK065V120X2](#) (1200V 65m Ω TO-247-3L) is immediately available for production quantities. Please contact your local sales representative for pricing.

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About AOS

Alpha and Omega Semiconductor Limited, or [AOS](#), is a designer, developer and global supplier of a broad range of power semiconductors, including a wide portfolio of [Power MOSFET](#), [IGBT](#), [IPM](#), [HVIC](#), [GaN/SiC](#), [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's portfolio of products targets high-volume applications, including portable computers, flat-panel TVs, LED lighting, smartphones, battery packs, consumer and industrial motor controls, and power supplies for TVs, computers, servers, and telecommunications equipment. For more information, please visit www.aosmd.com.

Forward-Looking Statements

This press release contains forward-looking statements 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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