

FOR IMMEDIATE RELEASE

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Alpha and Omega Semiconductor's New α MOS E2™ 600V Super Junction MOSFETs Support Optimized Electrical/Thermal Paths, Boosted System Performance and Long-Term Reliability

Advanced AOGT037V60DE2 and AOGT060V60DE2 top-side cooled high-voltage MOSFETs deliver the power density and robustness required by high-performance power systems and solar inverters

SUNNYVALE, Calif., Sep. 8, 2026 – [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 announced the release of α MOS E2™ 600V Super Junction MOSFETs: [AOGT037V60DE2](#) and [AOGT060V60DE2](#). AOS engineered its newly developed α MOS E2 High-Voltage MOSFET platform to meet the growing demands for enhanced efficiency and increased power density management capabilities. These 600V Super Junction MOSFETs provide excellent performance across a wide range of today's higher voltage applications, including servers, workstations, telecom rectifiers, solar inverters, motor drives and industrial power systems.

Users of the latest high-performance SMPS and solar inverters expect higher efficiency, greater power density, lower system cost and uncompromising robustness. The advanced technology features in AOS' top-side-cooled high-voltage Super Junction MOSFETs address these needs. These devices also meet the critical requirements in multiple topologies such as boost PFC, totem-pole PFC (slow leg), LLC resonant, PSFB and cyclo-converters.

AOS' α MOS E2 High-Voltage Super Junction MOSFET platform features exceptional body-diode ruggedness ($di/dt = 1500 \text{ A}/\mu\text{s}$), superior avalanche (UIS) capability, and short-circuit withstand time (SCWT). This enhanced ruggedness translates into higher system-level reliability, helping to ensure robust operation even under abnormal scenarios. Furthermore, AOS combines this α MOS E2 silicon with its top-side-cooled GTPAK™ package to maximize thermal performance via the top-side cooling pad. As a result, system designers can fully optimize thermal dissipation and reclaim PCB space to maximize overall power density. By co-optimizing both the electrical and thermal paths, system performance and long-term reliability are greatly enhanced.

"Our top-side cooled GTPAK products, such as the AOGT037V60DE2 and AOGT060V60DE2, are engineered to meet the demands of high-performance AC/DC power supplies, DC/DC converters and DC/AC solar inverters. Electromagnetic emission (EMI) and density bottlenecks of traditional bottom-side cooling have been a major engineering hurdle. Our α MOS E2 top-side cooled solutions give designers a premier solution for mid-to-high-power systems, empowering the performance-driven power infrastructure, power supply units, and renewable energy systems," said Simon Yu, Senior Manager of HV Product Line at AOS.

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Technical Highlights

- **Top-Side Cooled Package** maximizes power density by co-optimizing both the electrical and thermal paths.
- **Gull-Wing Leads** deliver superior board-level reliability in mission-critical environments.
- **Robust built-in fast body diode** reduces Qrr for high-stress applications
- **Enhanced robustness** with strong UIS, inrush current handling, and wide SOA capabilities
- **Designed to prevent self-turn-on**, ensuring reliable operation under dynamic conditions
- Suitable for Boost PFC, Totem Pole PFC, LLC, PSFB, and CrCM H-4/Cyclo Inverter applications

Pricing and Availability

The AOGT037V60DE2 (600 V, 37 mΩ) and AOGT060V60DE2 (600 V, 60 mΩ) in top-side-cooled GTPAK packages are now available in production quantities with a lead time of 16 weeks. The unit prices for 1,000-piece quantities are \$6.00 and \$3.00, respectively.

About AOS

Alpha and Omega Semiconductor Limited, or [AOS](http://www.aosmd.com), 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](#), [GaN](#), [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.

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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