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Alpha and Omega Semiconductor Sets a New Standard with XS Series MOSFET Packaging Technology

Best-in-class performance and power density, critical for high efficiency server, telecom, data storage and motor control applications

SUNNYVALE, Calif., Oct. 17, 2012 – Alpha and Omega Semiconductor Limited (AOS) (Nasdaq: AOSL), a designer, developer and global supplier of a broad range of power semiconductors, today set a new standard in power density and technology innovation for discrete power MOSFETs with exposed-source *XS*FET™, a new patent-pending packaging technology. *XS*FET incorporates the packaging technology where the bottom of the package is the "source", which enables power designers to remove heat more effectively to PCB ground plane. It features a large top heat slug which can be "top-exposed" or "non top-exposed" depending upon design criteria. The top-exposed version delivers a significant increase in heat transfer, which helps to reduce power losses in a system by keeping the die cooler.

Different from some of the existing double-sided cooling packaging options in the market today, AOS's new exposed-source packaging solution offers standard lead-frame based board mounting in a fully encapsulated DFN molded package, minimizing the thermal discrepancy between the device and the PCB while offering near zero parasitic inductance with its layout friendly footprint.

Utilizing AOS's new 30V AlphaMOS™ silicon technology together with exposed-source packaging, AOE6580 and AOE6580T (with top-exposed option) are the best-in-class 30V N-channel devices in the market today. Both devices are optimized for high performance demanding motor control, OR'ing, and E-fuse applications. Their very low on-resistance ($R_{DS(ON)}$ = 0.95mΩ max @$10V_{GS}$) in exposed-source DFN 5x6 package also make these devices very attractive for power supplies in computing, telecom, and high power density point-of-load sockets. Optimized for ultra-low conduction and switching losses, AOE6580 and AOE6580T minimize power losses in applications, thus providing power designers the flexibility in optimizing losses, performance, space, and cost.

AOE6770T and AOE6772T offer very high efficiency in server and high-end notebook applications by utilizing the combination of 25V AlphaMOS silicon technology and exposed-source packaging technology with the top-exposed option in industry standard DFN5x6 footprint. AOE7770T completes the solution as high-side MOSFET by combining exposed-source technology in compact DFN3x3 footprint with top-exposed option.

"AOS's new *XS*FET packaging technology sets a new Industry standard for higher power density and performance. Our new devices with both "top-exposed" and "non top-exposed" versions enable power designers to reduce power losses and increase performance significantly." said Yalcin Bulut, Vice President of Discrete Product Lines at AOS. "The exposed-source technology allows electronic designs to achieve higher current density while keeping components operating cooler. AOS tailored its technology to lead in innovation for solutions which make a difference in today's demanding application requirements."

AOE6770T, AOE6772T, AOE7770T, AOE6580, and AOE6580T are in halogen-free DFN packages and are MSL1 rated. They are all 100% UIS and Rg tested. For pricing and availability, please contact your local AOS sales representative.

Device Specification Table

	Package	Top Exposed	V_{DS}	V_{GS}	Typ $R_{DS(ON)}$ @ 10V	Typ $R_{DS(ON)}$ @ 4.5V	Typ Q_g @ 4.5V	I_D @ T_A = 25°C	I_D @ T_A = 100°C
AOE6770T	XS-5x6	Yes	25 V	±20 V	1.25 mOhm	1.95 mOhm	40 nC	145 A	90 A
AOE6772T	XS-5x6	Yes	25 V	±16 V	1.15 mOhm	1.6 mOhm	50 nC	145 A	90 A
AOE7770T	XS-3x3	Yes	30 V	±20 V	2.4 mOhm	3.4 mOhm	14 nC	76 A	48 A
AOE6580	XS-5x6	No	30 V	±20 V	0.78 mOhm	1.4 mOhm	34 nC	150 A	95 A
AOE6580T	XS-5x6	Yes	30 V	±20 V	0.78 mOhm	1.4 mOhm	34 nC	178 A	112 A

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 and Power IC products. AOS seeks to differentiate itself by integrating its expertise in device physics, process technology, design and advanced packaging to optimize product performance and cost, and its product portfolio is designed to meet the ever increasing power efficiency requirements in high volume applications, including portable computers, flat panel TVs, battery packs, smart phones, portable media players, UPS, motor control and power supplies. 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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