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Alpha and Omega Semiconductor Expands Its New PairFET™ Family

New PairFET™ series sets new industry standard with improved thermals and higher efficiency

SUNNYVALE, Calif., Sept. 14, 2016 (GLOBE NEWSWIRE) -- [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 introduced two new products based on its high efficiency XS-PairFET package and latest low voltage technology. The AOE6932 and AOE6936 are the newest extensions to the flagship device, AOE6930, that was released in 2015. Both products are newly optimized for enhanced driving and switching performance.

A photo accompanying this announcement is available at <http://www.globenewswire.com/NewsRoom/AttachmentNg/fc764aae-e177-4224-9941-f1590dc6ca40>

AOE6932 improves gate driving performance and reduces power loss at relatively low output current. AOE6936 features a 20V gate voltage tolerance with much smaller parasitic capacitances. Both devices offer the same 8mohm (max) R_{ds(on)} (@4.5V gate driving voltage) on the high side, but present different R_{ds(on)} values for the low side FET. AOE6932 is designed with a 1.8mohm (max) @ 4.5V_{gs} low side FET, while AOE6936 is designed with a 3mohm (max) low side FET. Application tests show that these distinct configurations uniquely optimize each device to achieve the best efficiency and address specific application requirements, such as the input-output voltage headroom, and current per phase for the V_{core} power supply.

"Our first product packaged in a PairFET with a bottom-sourced low-side FET was released last year, and the AOE6930 is now widely accepted by leading customers in notebook PC, desktop PC, and high-end VGA designs. The benefits offered by this structure are significant. With direct thermal dissipation from the low side source down to the copper layer of the PCB, the temperature rise can be well controlled in the power device. With the newly released AOE6932 and AOE6936, we offer wide coverage of various application conditions, with optimal cost effectiveness. This product family is setting a new industry standard for high power density circuit design in all POL applications," said Lei Feng, Sr. Marketing Director of MOSFET product line at AOS.

Device Specification Table

Part Number	Package	V _{DS} (V)	V _{GS} (±V)	R _{DS(ON)} (mΩ max)* at V _{GS} =		VGS(th) (max V)	Ciss (pF)	Coss (pF)	Crss (pF)	Qg* (nC)	Qgd (nC)
				10V	4.5V						
AOE6932	High Side	30	20	5	8	2.2	1150	380	55	7.5	3
	Low Side	30	12	1.4	1.8	1.9	4180	880	125	30	7
AOE6936	High Side	30	20	5	8	2.2	1150	380	55	7.5	3
	Low Side	30	20	2	3	2.1	2270	650	90	15	4.5
AOE6930 (reference)	High Side	30	20	4.3	7	2.1	1075	480	55	7	2.5
	Low Side	30	12	0.83	1.05	1.9	5560	1670	200	42	12

Pricing and Availability

The AOE6932 is immediately available in production quantities with a lead-time of 12-14 weeks. The unit price for 1,000 pieces is \$1.05

The AOE6936 is immediately available in production quantities with a lead-time of 12-14 weeks. The unit price for 1,000 pieces is \$0.9

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](#) and [Power IC](#) 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, smart phones, 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 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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