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Alpha and Omega Semiconductor Reveals Lowest R_{ss} MOSFET with Advanced CSP Technology

10% reduced R_{ss}, 14% size reduction to support faster battery charge

SUNNYVALE, Calif., Oct. 6, 2016 – [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 AOC3860, a common-drain 12V dual n-channel MOSFET with the lowest on-resistance in the product family of 2.15mOhm typical at 4.5V gate drive. This new device provides further improved source-to-source resistance, which is a critical factor for smart phone makers to achieve faster battery charge with a higher charging current.

The demand for faster charge comes from both the higher capacity of the battery pack and heavy use of the smart phone with data ranging from email and web browsing to video streaming. With the heavy duty use and shorter time for standby, charging has become a great feature for the newest smart phones. The market is seeing charging power increase from the traditional 5W to larger wattages of 15W or 25W, by raising either output voltage or output current. For battery packs, this always translates to a higher charging current. A MOSFET is a critical part of the battery charging circuit, which needs to provide reliable protection with minimum power loss and temperature rise. The AOC3860 is the latest product with the best R_{ss} and the smallest mounting size in the AlphaDFN™ family, which is a market-proven product family in the battery protection module market. The typical R_{ss} is 2.15mOhm with 4.5V gate voltage, and 2.25mOhm with 3.8V gate voltage. The chip size is further reduced to a 3.05x1.77mm.

“AOC3860 is a great example of our effort in continuously improving product performance with AOS process technology and knowledge base. Compared with our previously released product, we were able to reduce R_{ss} by 10%, and at the same time significantly reducing the device size by 14%. This could only be achieved with our deep understanding of the material, device design, process control, and improved packaging technology. Battery design engineers will find this device a good fit for battery packs with large charging current,” said Lei Feng, Sr. Marketing Director of MOSFET product line at AOS.

Device Specification Table

Part Number	V _{SS} (V)	V _{GS} (V)	R _{SS(ON)MAX} (mOhms)		R _{SS(ON)Typ} (mOhms)	
			4.5Vgs	3.8Vgs	4.5Vgs	2.5Vgs
AOC3860	12	8	2.7	2.85	2.15	2.25

Pricing and Availability

The AOC3860 is immediately available in production quantities with a lead-time of 12-14 weeks. The unit price for 1,000 pieces is \$0.60.

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 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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