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Photo Release -- Alpha and Omega Semiconductor Introduces New 1200V/1350V E-series IGBTs Optimized for Soft-Switching Applications

Fast turn-off reduces switching losses and improves system efficiency

SUNNYVALE, Calif., June 2, 2015 (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 the new E-series IGBT platform with the 1200V [AOK20B120E1](#) and 1350V [AOK20B135E1](#). This new platform has been honed to deliver exceptional performance by lower switching loss in soft-switching home appliance applications such as induction cooking, rice cookers and inverter-based microwave ovens.

A photo accompanying this release is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=33366>

The devices for the E-Series are built upon AOS's patent pending AlphaIGBT™ technology platform, and feature best-in-class $V_{CE(SAT)}$ and fast turn-off characteristics that reduce the power losses incurred during conduction and switching. The high BV_{CES} rating and rugged BV performance allow for a larger resonant voltage safety margin to prevent avalanche destruction from voltage transients. Moreover, EMI is minimized as a result of very smooth turn-off current waveforms.

"Applications based on induction heating depend on high performance IGBT solutions that help to raise system efficiency and offer long-term reliability," said Dr. Brian Suh, Vice President of IGBT product line at AOS. "The 1200V/1350V E-Series has been designed to offer both lower $V_{CE(SAT)}$ and optimized turn-off switching performance."

AOK20B120E1, AOK20B135E1 Technical Highlights

- 1200V/1350V IGBTs with freewheeling diode in a TO-247 package
- Lowest turn-off delay time: less than 200ns
- E_{OFF} increase by the temperature (25°C vs. 150°C): less than 50%
- I_C (100°C) = 20A
- $T_{J(max)}$ = 175°C
- $V_{CE(SAT)}$ = 1.68V typ (AOK20B120E1)
- $V_{CE(SAT)}$ = 1.8V typ (AOK20B135E1)

Pricing and Availability

The AOK20B120E1 and AOK20B135E1 are immediately available in production quantities with a lead-time of 12-14 weeks. The unit price for 10,000 pieces of AOK20B120E1 and AOK20B135E1 is \$1.82 and \$1.72, respectively.

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.

The photo is also available via AP PhotoExpress.

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E-Series IGBTs