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## Photo Release -- Alpha and Omega Semiconductor Broadens Its 600V AlphaIGBT(TM) Portfolio With Higher Power 20A to 60A Solutions

### Low V<sub>CE(SAT)</sub> and E<sub>OFF</sub> Combined With Robust Short Circuit Protection Lead to Highly Efficient IGBT Solutions for Consumer and Industrial Applications

SUNNYVALE, Calif., July 25, 2013 (GLOBE NEWSWIRE) -- [Alpha and Omega Semiconductor Limited](http://www.alphaomega.com) (AOS) (Nasdaq:AOSL), a designer, developer and global supplier of a broad range of power semiconductors, today announced the release of 7 new products in its 600V AlphaIGBT™ portfolio with high efficiency Insulated Gate Bipolar Transistor (IGBT) solutions ranging from 20A to 60A in the TO247 package. These new products are suitable for a wide variety of applications including domestic white goods (air conditioners, refrigerators and washing machines), commercial HVAC systems, photovoltaic inverters, as well as industrial equipment (welding machines, sewing machines and uninterruptible power supplies).

A photo accompanying this release is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=20087>

Built with the patent pending AlphaIGBT technology, these IGBTs offer an excellent combination of low V<sub>CE(SAT)</sub> and E<sub>OFF</sub> to deliver high efficiency during both the on-state and turn-off stages. These devices also offer twice the short circuit withstand time (SCWT) rating than the leading competitor with comparable V<sub>CE(SAT)</sub>, which helps protect the circuit during fault conditions such as locked rotor or inverter short circuit. AlphaIGBT solutions offer a very low Q<sub>gc</sub>/Q<sub>ge</sub> ratio that reduces induced gate voltage spikes in response to dV/dt transients. When it comes to paralleling, these IGBTs have a positive temperature coefficient of V<sub>CE(SAT)</sub>, allowing current to be naturally shared in balance during high temperature operation. Furthermore, the co-packaged anti-parallel diode in each of these devices delivers smooth soft reverse recovery characteristics.

"Discrete IGBTs are increasingly used in a variety of medium and high power applications such as motor drives, welding machines, UPS systems, and solar inverters," said Stephen Chang, Director of Product Marketing at AOS. "Our latest AlphaIGBTs deliver an optimal trade-off between conduction and switching performance to minimize power losses without compromising short circuit performance."

#### Technical Highlights

| Part Number | V <sub>CE(MAX)</sub> (V) | I <sub>C</sub> (A)<br>(100°C) | V <sub>CE(SAT)</sub> (V)<br>(typ) | E <sub>OFF</sub> (mJ)<br>I <sub>C</sub> , 400V, 25°C | SCWT (μs) | Package Type |
|-------------|--------------------------|-------------------------------|-----------------------------------|--|-----------|--------------|
| AOK20B60D1  | 600                      | 20                            | 1.85                              | 0.18   | 10        | TO247        |
| AOK30B60D1  | 600                      | 30                            | 1.85                              | 0.24   | 10        | TO247        |
| AOK30B60D   | 600                      | 30                            | 1.6                               | 0.2  | 10        | TO247        |
| AOK40B60D1  | 600                      | 40                            | 1.85                              | 0.3  | 10        | TO247        |
| AOK40B60D   | 600                      | 40                            | 1.6                               | 0.3  | 10        | TO247        |
| AOK50B60D1  | 600                      | 50                            | 1.85                              | 0.5  | 10        | TO247        |
| AOK60B60D1  | 600                      | 60                            | 1.85                              | 0.73   | 10        | TO247        |

Part numbers ending in "D" incorporate an anti-parallel diode optimized for motor drive applications.

Part numbers ending in "D1" incorporate an anti-parallel diode optimized for welding, solar, and UPS applications.

#### Availability

The 600V 20A, 30A, 40A, 50A, and 60A AlphaIGBT devices are immediately available in production quantities with a lead-time of 12-14 weeks. All devices are ROHS compliant and 100% Rg tested. Please contact your local AOS representative for pricing.

#### 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](http://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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Delivering Optimal Efficiency with 20A to 60A AlphaIGBTs