

**FOR IMMEDIATE RELEASE**

Media Contact: Martha Aparicio  
 Tel: 408.789.3233  
 Email: [martha.aparicio@aosmd.com](mailto:martha.aparicio@aosmd.com)

## Alpha and Omega Semiconductor Enters the IGBT Market with Best-in-Class Product Family

*Early adaptation of AlphaIGBT™ technology by major manufacturers of home appliances and industrial devices*

**SUNNYVALE, Calif., Oct. 10, 2012** – [Alpha and Omega Semiconductor Limited](#) (AOS) (Nasdaq: AOSL), a designer, developer and global supplier of a broad range of power semiconductors, today announced the release of its first family of high efficiency 600V Insulated Gate Bipolar Transistors (IGBTs) in [AlphaIGBT™](#) technology to address the growing need for energy efficient devices targeting motor control and power conversion applications. AOS’s patent pending AlphaIGBT proprietary technology combines a unique cell and vertical device structure to offer best-in-class conduction ( $V_{CE(SAT)}$ ) versus switching loss ( $E_{OFF}$ ) trade-off and longer short-circuit capability. As a result, AlphaIGBT enables a wide operation frequency range to address a variety of applications such as white goods (air conditioners, refrigerators, washing machines), industrial equipment (general inverters, servo motors, sewing machines, welding machines, uninterruptible power supplies), as well as commercial type heating and solar inverters.

AOS’s AlphaIGBT products offer 2.5 times lower turn-off switching loss ( $E_{OFF}$ ) and 2 times higher short circuit withstand time (SCWT) rating compared to the current leading competition device with similar  $V_{CE(SAT)}$  values. The ultra low gate-charge ( $Q_g$ ) of AlphaIGBT makes the devices incredibly easy to drive. In addition, the low  $Q_{GC}/Q_{GE}$  ratio allows the devices to withstand higher  $dV/dt$  transients and prevents oscillation issues in bridge applications. Combined with the 5.6V  $V_{GE(TH)}$ , a feature that can be used as an advantage to extend the use of unipolar (0-15V) gate drives saving the expense and complexity of bipolar (-15/15V) gate drives. The positive temperature coefficient of  $V_{CE(SAT)}$  and low overall gate charge characteristics of AlphaIGBT technology allow designers to easily parallel more devices and, or larger devices with existing drive circuits.

“After successfully establishing its position in the low-voltage to high-voltage MOSFET markets with best-in-class products, AOS is now ready to open a new chapter by offering superior IGBT products,” said Yalcin Bulut, Vice President of Discrete Product Lines at AOS. “With an expertise in device physics and deep system and application knowledge, AOS is raising the bar for IGBT performance as well.”

### Technical Highlights

Part Number	Package Type	$V_{CE(MAX)}$ (V)	$I_C$ (A) (100°C)	$V_{CE(SAT)}$ (V) (typ)	$E_{OFF}$ (mJ) IC, 400V, 25°C	SCWT (μs)
AOB5B60D	D2PAK	600	5	1.6	0.04	10
AOD5B60D	DPAK	600	5	1.6	0.04	10
AOT5B60D	TO220	600	5	1.6	0.04	10
AOB10B60D	D2PAK	600	10	1.6	0.07	10
AOK10B60D	TO247	600	10	1.6	0.07	10
AOT10B60D	TO220	600	10	1.6	0.07	10
AOTF10B60D	TO220F	600	10	1.6	0.07	10
AOB15B60D	D2PAK	600	15	1.6	0.11	10
AOK15B60D	TO247	600	15	1.6	0.11	10
AOT15B60D	TO220	600	15	1.6	0.11	10
AOTF15B60D	TO220F	600	15	1.6	0.11	10

**Availability**

The 600V 5A, 10A and 15A AlphaIGBT parts are immediately available in production quantities with a lead-time of 12 weeks. 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](#) 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](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.

###