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## Microsemi Announces New Generation of Super-efficient NPT IGBTs

ALISO VIEJO, Calif., May 9, 2012 /PRNewswire/ -- **Microsemi Corporation (Nasdaq: MSCC)**, a leading provider of semiconductor solutions differentiated by power, security, reliability and performance, today introduced the first in a series of new generation 1200 volt (V) non-punch through (NPT) IGBTs. The new family of IGBTs leverages Microsemi's leading-edge Power MOS 8™ technology, and offers a dramatic reduction of 20 percent or more in total switching and conduction losses as compared to competitive solutions. The IGBTs are targeted at applications including welding, solar inverters, and uninterruptible and switch mode power supplies.

(Logo: <http://photos.prnewswire.com/prnh/20110909/MM66070LOGO>)

Microsemi's new discrete products are the APT40GR120B, APT40GR120S and APT40GR120B2D30. The devices are offered on a standalone basis or can be packaged in combination with one of Microsemi's FRED or silicon carbide Schottky diodes to simplify product development and manufacturing. Additional features include:

- Significantly lower gate charge (Qg) than competition for faster switching;
- Hard switching operation greater than 80 KHz to enable more efficient power conversion;
- Easy to parallel (positive temperature coefficient of Vcesat) to improve reliability in high power applications; and
- Short Circuit Withstand Time Rated (SCWT) for reliable operation in applications requiring short circuit capability.

The APT40GR120B transistor is offered in a TO-247 package and the APT40GR120S is packaged in surface mount D3 PAK. The APT40GR120B2D30 is a T-MAX® packaged device that includes a 30A anti-parallel, ultrafast recovery diode built with Microsemi's proprietary "DQ" generation of low switching loss, avalanche energy rated diode technology. Additional performance information is available at [www.microsemi.com/images/MS%201200V%20Comparison.jpg](http://www.microsemi.com/images/MS%201200V%20Comparison.jpg).

### Availability

The first two of Microsemi's new NPT IGBTs are fully characterized and in production now. Samples are available through your local distributor or your local Microsemi sales representative. For more information please contact your local Microsemi sales representative via email at [sales.support@microsemi.com](mailto:sales.support@microsemi.com) or a Microsemi authorized distributor.

### About Microsemi

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for communications, defense and security, aerospace, as well as industrial and medical markets. Products include mixed-signal integrated circuits, SoCs and ASICs; programmable logic solutions; power management products; timing and voice processing devices; RF solutions; discrete components; and Power-over-Ethernet ICs and midspans. Microsemi is headquartered in Aliso Viejo, Calif., and has approximately 3,000 employees globally. Learn more at [www.microsemi.com](http://www.microsemi.com).

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"Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995: Any statements set forth in this news release that are not entirely historical and factual in nature, including without limitation statements related to its new generation 1200 volt non-punch through IGBTs and its new discrete products, the APT40GR120B, APT40GR120S and APT40GR120B2D30, and its potential effects on future business, are forward-looking statements. These forward-looking statements are based on our current expectations and are inherently subject to risks and uncertainties that could cause actual results to differ materially from those expressed in the forward-looking statements. The potential risks and uncertainties include, but are not limited to, such factors as rapidly changing technology and product obsolescence, potential cost increases, variations in customer order preferences, weakness or competitive pricing environment of the marketplace, uncertain demand for and acceptance of the company's products, adverse circumstances in any of our end markets, results of in-process or planned development or marketing and promotional campaigns, difficulties foreseeing future demand, potential non-realization of expected orders or non-realization of backlog, product returns, product liability, and other potential unexpected business and economic conditions or adverse changes in current or expected industry conditions, difficulties and costs of protecting patents and other proprietary rights, inventory obsolescence and difficulties regarding customer qualification of products. In addition to these factors and any other factors mentioned elsewhere in this news release, the reader should refer as well to the factors, uncertainties or risks identified in the company's most recent Form 10-K and all subsequent Form 10-Q reports filed by Microsemi with the SEC. Additional risk factors may be identified from time to time in Microsemi's future filings. The forward-looking statements included in this release speak only as of the date hereof, and Microsemi does not undertake any obligation to update these forward-looking statements to reflect subsequent events or circumstances.

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