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Automate Installation Process with Press-Fit Terminal Power Modules for a Solder-Free Solution in High-Volume Manufacturing

Microchip's SP1F and SP3F power modules are highly configurable in Silicon Carbide (SiC) or Silicon (Si) technology and now available with Press-Fit terminals

CHANDLER, Ariz., Dec. 06, 2023 (GLOBE NEWSWIRE) -- The E-Mobility, sustainability and data center markets require products that are conducive to high-volume manufacturing. To better automate the installation process, Press-Fit terminals are often used because they offer a solder-free solution to mount power modules to the PCB. Microchip Technology **(Nasdaq: MCHP)** today announces its expansive portfolio of SP1F and SP3F power modules are now available with **Press-Fit terminals** for high-volume applications.

Solder-free Press-Fit power module terminals allow for automated or robotic installation, which simplifies and speeds up the assembly process to reduce manufacturing costs. The high accuracy of the terminal locations and the novel Press-Fit pin design in the SP1F and SP3F power modules enables high-reliability contact with the printed circuit card. Overall, a Press-Fit power module solution can save valuable time and production costs.

There are over 200 variants available in Microchip's SP1F and SP3F power modules portfolio, with options to use mSiC™ technology or Si semiconductors and an array of topologies and ratings. The SP1F and SP3F are offered in voltage range of 600V-1700V and up to 280A.

With Press-Fit technology, the power module pins are not soldered to the PCB. Instead, the electrical connection is made by pressing the pins into properly sized PCB holes. A key advantage of a Press-Fit power module solution is it eliminates the need for wave soldering. This is especially important when the PCB is made to also include Surface-Mount Technology (SMT) components.

"Our power modules with Press-Fit terminals offer customers the flexibility to fully customize their design and are cost-effective power solutions for high-volume production," said Leon Gross, vice president of Microchip's discrete products group. "This type of plug-and-play power solution also provides a highly reliable mounting solution for automated or robotic assembly."

The highly configurable SP1F and SP3F power modules are fully compliant with the Restriction of Hazardous Substances Directive (RoHS).

Support and Resources

Application note AN4322 provides detailed mounting instructions for SP1F and SP3F Press-Fit power modules.

Pricing and Availability

The Press-Fit terminal option with Microchip's SP1F and SP3F power modules is now available. For additional information and to purchase, contact a Microchip sales representative, authorized worldwide distributor or visit Microchip's Purchasing and Client Services website, **www.microchipdirect.com**.

Resources

High-res images available through Flickr or editorial contact (feel free to publish):

- Application image: **www.flickr.com/photos/microchiptechnology/53334254890/sizes/l**

About Microchip Technology:
Microchip Technology Inc. is a leading provider of smart, connected and secure embedded control solutions. Its easy-to-use development tools and comprehensive product portfolio enable customers to create optimal designs which reduce risk while lowering total system cost and time to market. The company's solutions serve more than 125,000 customers across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at **www.microchip.com**.

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