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Electronic Products Honors Littelfuse with Product of the Year Award for SP1012 Series TVS Diode Array

Winning product offers a 5x improvement over earlier implementations



SP1012_Series Product Image

CHICAGO, February 10, 2015 - Littelfuse, Inc., the global leader in circuit protection, has been honored with a 2014 Product of the Year Award from the editors of *Electronic Products* magazine. The winning product, the SP1012 Series TVS Diode Array (SPA® Diodes), is a miniature, five-channel bidirectional TVS array for general-purpose electrostatic discharge (ESD) protection. Because it packs five ESD diodes in a flipchip package that would normally contain only one, the SP1012 Series offers circuit designers a 5x improvement over earlier implementations.

"The SP1012 Series TVS diode array is the most densely designed ESD protection device on the market today," said Leonard Schiefer, managing editor of Electronic Products. "With a flipchip package the silicon itself is the package and the electrical connections are the die itself. It also includes plated leads for solderability. This helps circuit designers economize on both printed circuit board (PCB) space and costs."

Created by *Electronic Products* in 1977, the award recognizes innovations introduced during the preceding year that offer a significant advancement in a technology or its application, innovative design, or a substantial achievement in price/performance. Winners are selected after a review of thousands of products and are announced in the magazine's January 2015 issue.

Ian Highley, vice president and general manager at Littelfuse, remarked, "The development of the SP1012 Series shows our commitment to providing robust ESD suppression solutions for advanced technologies. This award is the latest recognition of the technical expertise and dedication Littelfuse brings to the circuit protection marketplace."

Chad Marak, the product line director for the TVS Diode Array line when Littelfuse introduced the SP1012 Series in October 2014 and now the company's director of semiconductor business development, noted, "Receiving this recognition is very satisfying because we're so proud of what this product offers our circuit design engineering customers. We created a device in a 0402-size footprint that can protect five lines against an ESD attack. That space-saving design is making it very popular for use on SIM card interfaces and datalines for capacitive touchscreen displays, as well as the wearables market, which is growing rapidly."

By providing the highest number of ESD diodes available in a package much less than a square millimeter in size, the SP1012 Series helps circuit designers economize on both printed circuit board (PCB) space and costs. These robust diodes can safely absorb repetitive ESD strikes above the maximum level specified in the IEC 61000-4-2 international standard without performance degradation. The bidirectional configuration provides symmetrical ESD protection for data lines when AC signals are present.

The SP1012 Series TVS Diode Array offers circuit designers several key benefits:

- Five back-to-back ESD protection diodes in less board space than an SOD-882 (i.e., 1.0 x 0.6mm); saving PCB

area/cost.
- Industry-leading ESD protection, providing greater than ±15kV protection per IEC 61000-4-2 (contact), giving engineers higher end product reliability in the field.
- Very low dynamic resistance of 0.48? supports the low clamping voltages needed for protecting modern electronics.
- ESD devices are co-terminated, permitting flexibility in ground pad selection.
- Nominal 6V standoff voltages permits protection of 95 percent of the current and future user interfaces.

For More Information
Additional information on the SP1012 Series is available on its product page and datasheet.

About Littelfuse
Founded in 1927, Littelfuse is the world leader in circuit protection with growing global platforms in power control and sensing. The company serves global customers in the electronics, automotive and industrial markets with technologies including fuses, semiconductors, polymers, ceramics, relays and sensors. Littelfuse has over 8,000 employees in more than 35 locations throughout the Americas, Europe and Asia. For more information, please visit the Littelfuse website: littelfuse.com.

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