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Four-Channel TVS Diode Array from Littelfuse Combines Low Dynamic Resistance with Enhanced ESD Capability

Compact footprint is ideal for micro-SIM interfaces, smartphones, wearables, tablets, and eReaders



SP1015_Series TVS Diode Array Product Image

CHICAGO, May 12 , 2015 - Littelfuse, Inc., the global leader in circuit protection, has introduced the miniature four-channel bidirectional SP1015 Series TVS Diode Array (SPA® Diodes), designed to protect data lines that may experience destructive electrostatic discharge (ESD). These robust diodes can safely absorb repetitive ESD strikes (±20kV contact, ±30kV air) well above the maximum level specified in the IEC61000-4-2 international standard without performance degradation. Their bidirectional configuration provides symmetrical ESD protection for data lines when AC signals are present. With just 0.65Ω of dynamic resistance, the SP1015 Series supports the low clamping voltage needed to protect the small-geometry integrated circuits used in modern electronic devices. Because the SP1015 Series provides four lines of ESD protection in a compact flip chip package, it is ideal for applications where conserving board space is critical, including micro-SIM interfaces, touchscreen controller lines, and general purpose I/Os on smartphones, wearable devices, tablets, and eReaders.

"The SP1015 Series draws upon the technology we developed for the award-winning SP1012 Series TVS Diode Array," said Tim Micun, product manager for the TVS Diode Arrays line. "Its compact footprint of less than a square millimeter helps circuit designers economize on both printed circuit board space and cost."

SP1015 Series TVS Diode Arrays offer these key benefits:

- Four lines of ESD protection in a 0.93x0.53mm footprint allows placement in close proximity to a micro-SIM (µSIM) socket, minimizing both printed circuit board space requirements and costs.
- Bidirectional configurations, critical for protecting capacitive touch screens up through 6 inch
- ESD protection beyond the maximum rating in the IEC61000-4-2 standard and superior protection ensures greater design margin and higher end-product reliability in the field.
- Very low dynamic resistance (0.65Ω) supports the low clamping voltage needed for protecting modern electronics filled with small-geometry ICs.
- Nominal 5V standoff voltage permits protection of most of the current and future user interfaces

Availability
The SP1015 Series is packaged in a 0.93x0.53mm flip chip package (0402 format) and is provided in tape & reel form in quantities of 5,000. Sample requests can be placed through authorized Littelfuse distributors worldwide. For a listing of Littelfuse distributors, please visit Littelfuse.com.

For More Information
Additional information is available on the SP1015 Series product page and datasheet. If you have technical questions, please contact: Tim Micun, Product Manager, TVS Diode Arrays, tmicun@littelfuse.com.

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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