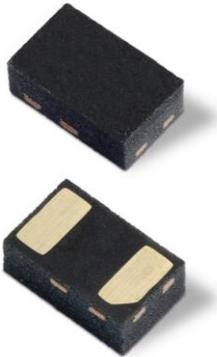


Littelfuse Inc.  
8755 West Higgins Road, Suite 500  
Chicago, Illinois 60631  
p: (773) 628-1000 f: (773) 628-0802  
[www.littelfuse.com](http://www.littelfuse.com)

## FOR IMMEDIATE RELEASE

**Media Contact:**

Rhonda Stratton  
Global Marketing Communications Manager  
Electronics Products, Littelfuse, Inc.  
773-628-0644  
[rstratton@littelfuse.com](mailto:rstratton@littelfuse.com)  
[twitter.com/littelfuse](https://twitter.com/littelfuse)



[SP11xx Series TVS Diode Arrays](#)

## Littelfuse TVS Diode Arrays with High Surge Tolerance Protect DC Powerlines for PoweredUSB Interfaces

*The highest surge density of any Littelfuse TVS Diode Array*

**CHICAGO, July 5, 2017** — [Littelfuse, Inc.](http://www.littelfuse.com), the global leader in circuit protection, today introduced a series of TVS Diode Arrays (SPA<sup>®</sup> Diodes) optimized to protect DC powerlines for PoweredUSB interfaces from damaging electrostatic discharges (ESDs).

SP11xx Series TVS Diode Arrays employ Zener diodes fabricated in a proprietary silicon avalanche technology to protect each I/O pin in the interface. These robust devices offer high surge tolerance, with the highest surge density per square millimeter of any TVS Diode Array that Littelfuse offers, and extremely low dynamic resistance across all of the relevant voltage levels for PoweredUSB interfaces. They can safely absorb repetitive ESD strikes at  $\pm 30\text{kV}$  without performance degradation and safely dissipate 80A of 8/20 $\mu\text{s}$  surge current with very low clamping voltages.

SP11xx Series TVS Diode Arrays are designed to prevent premature failure or thermal issues related to fast-charging batteries, such as those used in tablets and smartphones, by limiting exposure to the fast transients associated with plugging into AC/DC converters that could introduce dirty power to the battery. They are also useful for protecting  $V_{\text{bus}}$  lines for USB 3.1 type C interfaces, which are increasingly common in handheld devices.

Additional applications for SP11xx TVS Diode Arrays include ESD protection for switches/buttons, test equipment/instrumentation, point-of-sale terminals, medical equipment, notebooks/desktops/servers, computer peripherals and automotive electronics.

“The SP11xx Series combines high surge tolerance for a higher level of ESD protection and extremely low dynamic resistance for faster response,” said Tim Micun, business development manager for TVS Diode Arrays at Littelfuse. “They offer designers the flexibility to choose what is most important for their application, whether that’s size, cost, or performance.”

SP11xx Series TVS Diode Arrays offer these key benefits:

- Extremely low dynamic resistance ( $R_{DYN}$ ) ensures a faster response to ESD transients for better performance.
- Discrete unidirectional design is the most appropriate solution for DC interfaces and provides the lowest dynamic resistance available.
- Flat surge performance across current profiles provides greater protection during extreme surge or ESD events.

### **Availability**

The SP11xx Series (surface mount 1610 package) is provided in tape & reel format in quantities of 3,000. Sample requests may be placed through authorized Littelfuse distributors worldwide. For a listing of Littelfuse distributors, please visit [Littelfuse.com](http://Littelfuse.com).

### **For More Information**

Additional information is available on the [SP11xx TVS Diode Arrays product page](#). For technical questions, please contact: Tim Micun, business development manager for TVS Diode Arrays (SPA<sup>®</sup> Diodes), [tmicun@littelfuse.com](mailto: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 customers in the electronics, automotive and industrial markets with technologies including fuses, semiconductors, polymers, ceramics, relays and sensors. Littelfuse has over 10,000 employees in more than 40 locations throughout the Americas, Europe and Asia. For more information, please visit the Littelfuse website: [Littelfuse.com](http://Littelfuse.com).

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