

Microchip Launches Military-Qualified Plastic Transient Voltage Suppressors for Aerospace and Defense Applications

The JANPTX devices meet the MIL-PRF-19500 qualification and offer a high peak pulse power rating of 1.5kW

CHANDLER, Ariz., Jan. 13, 2026 (GLOBE NEWSWIRE) -- Microchip Technology (**Nasdaq: MCHP**) today announces the release of its [JANPTX family](#) of non-hermetic plastic Transient Voltage Suppressor (TVS) devices that meet the MIL-PRF-19500 qualification, offering high-reliability protection for aerospace and defense applications. These TVS devices are the first in the industry to achieve MIL-PRF-19500 qualification in a plastic package, offering engineers a lightweight, cost-effective solution without sacrificing stringent military performance requirements. The JANPTX product line is available in voltage ranges from 5V to 175V and includes five variants: JANPTX1N5555UJ, JANPTX1N5558UG, JANPTX1N5629AUJ, JANPTX1N5665AUG, JANPTX1N5907UG and JANPTX1N5907UJ.

With a high peak pulse power rating of 1.5 kW and clamping response times measured at less than 100 picoseconds in internal tests, the JANPTX family is designed to help ensure the safety and reliability of sensitive electronic components in demanding environments. Designed for surface mounting, these unidirectional TVS devices deliver protection against voltage transients such as lightning strikes, electrostatic discharge (ESD), and electrical surges.

“Microchip’s JANPTX family sets a new standard for military-grade transient protection in aerospace and defense,” said Ronan Dillon, associate director of Microchip’s high-reliability and RF business unit. “By delivering the first MIL-PRF-19500 qualified plastic TVS devices, we enable engineers to achieve high reliability and performance in a lightweight, cost-effective package.”

The JANPTX TVS devices help safeguard airborne avionics, electrical systems and other mission-critical applications where low voltage and high reliability are essential. Their advanced design supports protection from switching transients, induced RF effects, Electromagnetic Pulse (EMP) and secondary lightning events, designed to meet IEC61000-4-2, IEC61000-4-4, and IEC61000-4-5 standards.

Key Features of the TVS Devices

- Surface-mount unidirectional TVS design
- Can suppress transients up to 1.5kW at 10/1000 μ s
- Capable of clamping transients in less than 100 ps
- Working voltage range: 5V to 175V
- Military qualification: MIL-PRF-19500/716
- Equivalent hermetic packages available for surface mount and thru-hole

- Weight: ~0.25 grams

Microchip's scalable, customizable and high-reliability solutions for aerospace and defense applications are designed to meet rigorous industry standards. Supported by a dedicated aerospace and defense team, Microchip offers controlled manufacturing, full traceability, advanced testing, extended temperature operation and radiation-hardened options, helping to ensure long-term supply and dependable support for mission-critical designs. To learn more about Microchip's aerospace and defense solutions, visit its [website](#).

Development Tools

The JANPTX devices are supported by various SPICE models to predict and simulate a circuit's behavior virtually instead of time-consuming physical prototyping and redesigns.

Pricing and Availability

The JANPTX devices are available in production quantities. You can [purchase](#) directly from Microchip or contact a Microchip [sales representative or authorized worldwide distributor](#).

Resources

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

- Application image:
www.flickr.com/photos/microchiptechnology/54966276214/sizes/l

About Microchip Technology:

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