



Vishay Intertechnology PAR® and TRANSZORB® TVS Deliver Power Dissipation of 3000 W in New DFN6546A Package

May 13, 2026

Featuring a Low 0.88 mm Profile and Wettable Flanks, Unidirectional and Bidirectional Devices Save Space and Provide Excellent Clamping Capability Up to 137 V

MALVERN, Pa., May 13, 2026 (GLOBE NEWSWIRE) -- Vishay Intertechnology, Inc. (NYSE: VSH) today introduced four series of unidirectional and bidirectional 3000 W PAR® and TRANSZORB® surface-mount transient voltage suppressors (TVS) in the new DFN6546A package with wettable flanks. Providing space-saving solutions for industrial and automotive applications, the Automotive Grade [T3KNxxA](#) and [T3KNxxCA](#) series devices are AEC-Q101 qualified and offer high temperature operation to +185 °C, while the [3KDFNxxA](#) and [3KDFNxxCA](#) series meet the LL15i Industrial Reliability Qualification.

The latest package in Vishay's Power DFN family, the DFN6546A features a compact 6.5 mm x 4.6 mm footprint and an extremely low typical height of 0.88 mm, allowing the Vishay General Semiconductors TVS diodes released today to make more efficient use of PCB space. At the same time, the devices' advanced construction and die placement technology allow for a higher copper content and larger chip sizes, resulting in significant performance increases. Footprint-compatible with the SMP (TO-277A) package, the diodes offer twice the power dissipation with a 20 % lower profile. Compared to devices in the SMC (DO-214AB), they offer the same power dissipation while reducing volume by 76 %.

The TVS are designed to protect sensitive electronics against voltage transients induced by inductive load switching and lightning. Typical applications for the AEC-Q101 qualified T3KNxxA and T3KNxxCA PAR series include advanced driver assistance (ADAS), lidar, camera, infotainment, and sensor systems; DC/DC converters; battery management systems (BMS) and onboard chargers; electric power steering (EPS); traction inverters; central control units; and electrical motor drives. The industrial-qualified 3KDFNxxA and 3KDFNxxCA TRANSZORB series will be used in robot control boards, process / flow control instrumentation, automation systems, and generator start controllers; 60 kW energy storage systems; server power modules; consumer entertainment devices; and telecom and medical equipment.

For these applications, the diodes offer excellent clamping capability with maximum clamping voltages from 16.7 V to 33.2 V for the T3KNxxA and 3KDFNxxA, and 16.7 V to 137 V for the T3KNxxCA and 3KDFNxxCA. The wettable flanks of their DFN6546A package allow for automatic optical inspection (AOI), eliminating the need for an X-ray inspection. Ideal for automated placement, the devices offer a MSL moisture sensitivity level of 1, per J-STD-020, LF maximum peak of 260 °C. The components are RoHS-compliant and halogen-free, and their matte tin-plated leads meet the JESD 201 Class 2 whisker test.

Device Specification Table:

Series	T3KNxxA	3KDFNxxA	T3KNxxCA	3KDFNxxCA
Power dissipation (W)	3000			
Breakdown voltage (V)	12 to 24		12 to 100	
Stand-off voltage (V)	10.2 to 20.5		10.2 to 85.5	
Max. clamping voltage (V)	16.7 to 33.2		16.7 to 137	
T _J max. (°C)	185	175	185	175
Polarity	Unidirectional		Bidirectional	
Circuit Configuration	Single			
AEC-Q101	Yes	No	Yes	No

Samples and production quantities of the new 3000 W TVS in the DFN6546A package are available now, with lead times of 12 weeks.

Vishay manufactures one of the world's largest portfolios of discrete semiconductors and passive electronic components that are essential to innovative designs in the automotive, industrial, computing, consumer, telecommunications, military, aerospace, and medical markets. Serving customers worldwide, Vishay is **The DNA of tech.**® Vishay Intertechnology, Inc. is a Fortune 1000 Company listed on the NYSE (VSH). More on Vishay at www.Vishay.com.

The DNA of tech® is a registered trademark of Vishay Intertechnology, Inc. TVS and PAR are registered trademarks of Vishay Intertechnology, Inc.

Vishay on Facebook: <http://www.facebook.com/VishayIntertechnology>

Vishay Twitter feed: <http://twitter.com/vishayindust>

Links to product datasheets:

<http://www.vishay.com/ppg?98814> (3KDFN12A thru 3KDFN24A)
<http://www.vishay.com/ppg?98818> (3KDFN12CA thru 3KDFN100CA)
<http://www.vishay.com/ppg?98808> (T3KN12A thru T3KN24A)
<http://www.vishay.com/ppg?98817> (T3KN12CA thru T3KN100CA)

Link to product photo:

<https://www.flickr.com/photos/vishay/albums/72177720333433144>

For more information please contact:

Vishay Intertechnology
Peter Henrici, +1 408 567-8400
peter.henrici@vishay.com

or

Redpines
Bob Decker, +1 415 409-0233
bob.decker@redpinesgroup.com