



Vishay Intertechnology FRED Pt® 500 A Ultrafast Soft Recovery Diode Modules in the New TO-244 Gen III Package Deliver High Reliability

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Featuring a Common Cathode Configuration, Devices Can Withstand IOL Cycles Up to 5x That of the Previous TO-244 Generation for Improved Life Expectancy While Reducing Losses

MALVERN, Pa., March 27, 2024 (GLOBE NEWSWIRE) -- Vishay Intertechnology, Inc. (NYSE: VSH) today introduced two new FRED Pt® 500 A Ultrafast soft recovery diode modules in the new TO-244 Gen III package. Offering higher reliability than previous-generation solutions, the Vishay Semiconductors [VS-VSUD505CW60](#) and [VS-VSUD510CW60](#) are designed to reduce losses and EMI / RFI in high frequency power conditioning systems.

The rugged TO-244 package of the diode modules released today withstands 46 000 IOL cycles at given conditions, offering an improved life expectancy over previous-generation devices. In addition, the industry-standard package is footprint-compatible with competing solutions in the TO-244 to provide a drop-in replacement for existing designs.

The VS-VSUD505CW60 and VS-VSUD510CW60 are ideally suited for high frequency welding; high current converters and ballast water management systems (BWMS) in railway equipment, cranes, and ships; UPS; and other applications where switching losses comprise a significant portion of the total losses. In these applications, the softness of their recovery eliminates the need for a snubber, reducing component counts and lowering costs.

Offered in a common cathode configuration, the diode modules provide low forward voltage drop down to 0.82 V, thermal resistance — junction to case — of 0.16 °C/W, and an operating temperature range up to +175 °C.

Device Specification Table:

Part number	VS-VSUD505CW60	VS-VSUD510CW60
V _R (V)	600	
I _{F(AV)} (A)	500	
Q _{rr} typical (nC)	460	1770
t _{rr} (ns)	178	270
V _{FM} @ 250 A, +175 °C (V)	0.95	0.82
R _{thJC} per diode (°C/W)	0.160	
Package	TO-244	

Samples and production quantities of the new FRED Pt soft recovery diode modules are available now, with lead times of 26 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 1,000 Company listed on the NYSE (VSH). More on Vishay at www.vishay.com.

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Links to product datasheets:

<http://www.vishay.com/ppg?297092> (VS-VSUD505CW60)

<http://www.vishay.com/ppg?297093> (VS-VSUD510CW60)

Link to product photo:

<https://www.flickr.com/photos/vishay/albums/72177720315672676>

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