

Semiconductor Supplier Adds SiC Diodes To Portfolio

[Nexperia](#) announced its entry into the high-power silicon carbide (SiC) diodes market with the introduction of 650-V, 10-A SiC Schottky diodes. The PSC1065H (-J/-K/-L) is the first in a portfolio of SiC Schottkys diodes that Nexperia is developing to address the automotive and industrial markets.

This is a strategic move for Nexperia, already a supplier of power GaN FETs, to expand its high-voltage wide bandgap semiconductor device offerings. The PSC1065H SiC Schottky diode is an industrial-grade device with 650-V repetitive peak reverse voltage (VRRM) and 10-A continuous forward current (IF), designed to combine ultra-high performance and high efficiency with low energy loss in power conversion applications.

Providing the added benefit of a high-voltage compliant real 2-pin (R2P) package with higher creepage distance, it is available in a choice of surface mount (DPAK R2P and D2PAK R2P) or through-hole (TO-220-2 and TO-247-2) devices (see the figure). Engineering samples are available on request with a full product release planned for the second quarter of 2022. Nexperia plans to continuously increase its portfolio of SiC diodes, which will lead to a total of 72 products operating at voltage levels of 650 V and 1200 V and with currents in the range of 6 A to 20 A.

Nexperia's SiC Schottky diodes initially target industrial and consumer applications including switch-mode power supplies (SMPs), dc-dc converters, battery charging infrastructure, uninterruptible power supplies (UPSs) and photovoltaic inverters. Nexperia also plans to release automotive-grade devices for use in vehicle electrification applications such as on-board chargers (OBCs), inverters, and high-voltage dc-dc converters.

For more information on the PSC1065x, including product specs and datasheet, see the [website](#).

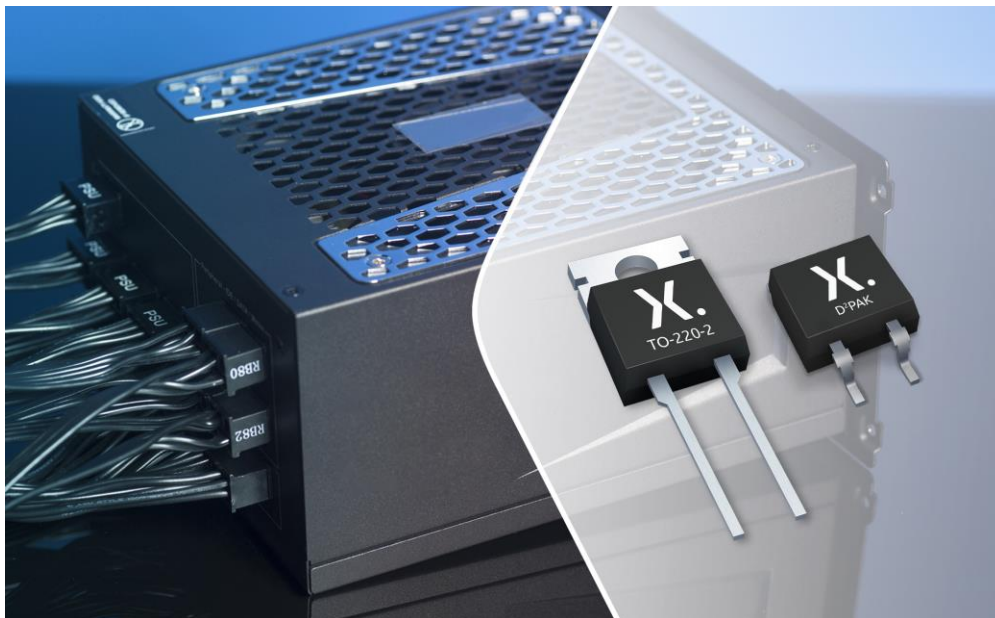


Figure. Nexperia has expanded its portfolio of wide-bandgap semiconductors, which currently includes GaN FETs, by introducing its first family of SiC Schottky diodes. Samples of industrial-grade 650-V, 10-A SiC Schottkys are now available. Parts with 1200-V and 6-A to 20-A current range and automotive-grade parts also planned.