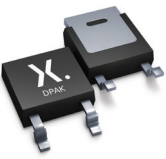

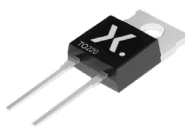
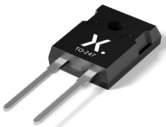


# SiC Schottky Diodes

## New Silicon Carbide Diode portfolio for high-power

Nexperia introduces leading edge Silicon Carbide (SiC) Schottky Diodes for ultra-high performance, low loss, and high efficiency power conversion applications. Benefit from temperature independent capacitive turn-off and zero recovery switching behavior combined with an outstanding figure-of-merit ( $Q_c \times V_F$ ). The Merged PN Schottky diode improves the robustness expressed in a high  $I_{FSM}$ .

### Product range

Qualification	$V_{RRM}$ (V)	$I_F$ (A)	TO-252-2 (DPAK R2P)	TO-263-2 (D2PAK R2P)	TO-220-2	TO-247-2
Automotive and industrial	1200	10				
		16				
		20				
	650	6				
		10				
		16				
		20				

650 V, 10 A industrial grade PSC1065H/K in four high-voltage compliant real 2-pin (R2P) packages with higher creepage distance available now.

**nexperia**

EFFICIENCY WINS.

## Key features

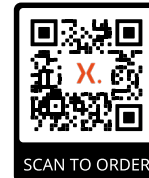
- › Zero forward and reverse recovery
- › Temperature independent switching performance
- › Fast and smooth switching performance
- › High  $I_{FSM}$  capability
- › Low leakage current
- › Easy to parallel / positive temperature coefficient
- › Outstanding figure-of-merit ( $Q_c \times V_F$ )
- › Thermal stability up to 175 °C junction temperature
- › AEC-Q101 qualification

## Key benefits

- › High power density
- › Reduced system cost
- › System miniaturization
- › High temperature operation
- › Reduced EMI
- › Increased ruggedness and reliability

## Key applications

- › Consumer and industrial power supplies / PFC
- › DC-DC-converter
- › High frequency AC-DC converter
- › Traction inverter
- › On board charger
- › Battery charging systems
- › Base station power supply (5G)
- › Photovoltaic power converter



**Demonstrator sample pack with 650 V,  
10 A SiC Schottky Diodes**

# PSC 10 65 H

**NEXPERIA Silicon Carbide**

**Continuous forward current:**

06 = 6 A  
08 = 8 A  
**10** = 10 A  
16 = 16 A  
20 = 20 A

**Max. reverse voltage:**

**65** = 650 V  
120 = 1200 V

**Qualification scheme:**  
Standard  
Q Automotive

**Package indicator:**

**H** TO-252-2 (DPAK R2P)  
**J** TO-263-2 (D2PAK R2P)  
**K** TO-220-2  
**L** TO-247-2

Full portfolio with 72 parts will be launched in 2022.

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[nexperia.com](https://www.nexperia.com)

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