

Schottky diodes are created by connecting a semiconductor, usually an N-doped silicon, to a metal, such as molybdenum, platinum, chromium, tungsten, aluminum, or gold.

This junction creates a **Schottky barrier**: an electron potential energy barrier with rectifying characteristics, for which the diode is named.



Schottky diodes have a **low forward voltage drop** and a **very fast switching action** due to their fast reverse recovery times.

Ideal for: Voltage clamping

Reverse current/discharge protection Switched-mode power supplies Sample-and-hold circuits Charge control Schottky diodes have a **lower** reverse breakdown voltage, which makes them unsuitable for applications where high reverse voltage is expected.