

Analog Power 50V N-Ch Power MOSFET

Compact Agility: Ultra-Fast 50V Switching Engineered for High-Density Board Designs!

San Jose, California, August 31, 2026 – Analog Power today officially released the market promotion for the BSS138N, a high-efficiency 50V N-channel Power MOSFET designed to deliver dependable switching performance in a compact, industry-standard form factor. Delivering an on-resistance $R_{DS(on)}$ of 3.5Ω within the miniature SOT-23 package, the BSS138N utilizes advanced low $R_{DS(on)}$ trench gate technology with low thermal impedance. This balance provides design engineers with a robust, fast-switching solution tailored for low-to-medium voltage power routing, conversion circuits, and small-signal drive systems without occupying excessive PCB space.

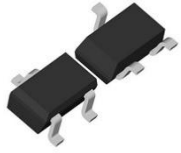
By optimizing switching response and board layout efficiency, the BSS138N delivers high reliability across demanding industrial and consumer environments. Its compact footprint and optimal thermal characteristics simplify high-density circuit routing while securing stable power delivery and long-term durability.

Key Features of the Device Include:

- 50V N-Channel Power MOSFET engineered for efficient low-to-medium voltage power management.
- Low $R_{DS(on)}$ Trench Technology $3.5\Omega_{max}$ to minimize conduction losses
- Low Thermal Impedance for effective heat dissipation in compact layouts
- Fast Switching Speed optimized for high-frequency conversion and precise logic control
- Standard SOT-23 Surface-Mount Package ensuring seamless integration into high-density PCB assemblies

Typical Applications:

- Power Routing & Load Switching in compact electronic assemblies
- DC/DC Conversion Circuits and low-profile power modules
- Small-Scale Motor Drives and actuator switching systems
- Logic-Level Shifting & Signal Gating for microcontroller I/O and communication interfaces
- Space-Constrained Embedded Hardware and IoT sensor nodes



The BSS138N 3.5 Ω 50V N-channel MOSFET in the SOT-23 package is now available for sampling and volume production. The preliminary datasheet can be accessed at:

<https://www.analogpowerinc.com/datasheet.php?part=BSS138N>

For more information, visit www.analogpowerinc.com.

About Analog Power: Founded in 2002 in San Jose, CA, USA, Analog Power is a leading manufacturer of Power MOSFETs. It produces not only a complete line of N- and P-channel MOSFETs from 12V to 1.5kV, but also application specific MOSFETs that facilitate smaller and higher performance end products. Using tier-1 wafer foundries and assembly and test outsourcing, Analog Power provides the quality and reliability levels of market leaders, yet remains dynamic and customer-driven.

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