

Analog Power 20V N-Ch Power MOSFET

Punching Above Its Weight: High-Drive Low-Voltage Switching in SOT-23!

San Jose, California, September 30, 2026 – To meet the escalating demand for ultra-compact power density in next-generation portable and smart electronics, Analog Power today unveiled its promotional release for the BSS806N, a high-performance 20V N-channel Power MOSFET that breaks boundaries in standard SOT-23 packaging. Delivering an exceptional on-resistance down to 52mΩ (at $V_{GS} = 10V$) with a robust 4.1A continuous current capability, the BSS806N is engineered to minimize conduction bottlenecks without expanding board footprint. Featuring a low gate threshold and full gate drive capability down to 1.8V (52mΩ), it enables seamless direct-drive operation from low-voltage microcontrollers, maximizing battery runtime and cutting thermal overhead in space-starved architectures.

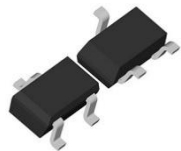
Engineers can now unlock superior efficiency for compact switching stages, eliminating the trade-off between board real estate and current handling. The BSS806N provides the ideal silicon upgrade for dynamic power delivery, combining rapid switching dynamics with rock-solid thermal dissipation.

Key Features of the Device Include:

- **Exceptional Current Handling in SOT-23:** Delivers high continuous and peak current capabilities to support demanding power loads
- **Ultra-Low On-Resistance:** Advanced trench technology minimizes conduction losses and improves overall system efficiency
- **Sub-2V Logic-Level Gate Drive:** Seamless direct-drive operation from ultra-low-voltage microcontrollers without external level shifters
- **Optimized Thermal Performance:** Low thermal impedance architecture maintains cooler operating temperatures in compact layouts
- **Fast & Responsive Switching:** Low gate charge and parasitic capacitances enable dynamic power gating and high-frequency conversion

Typical Applications:

- White LED Boost Converters demanding high current throughput in sleek form factors
- Automotive Infotainment & Telematics Systems requiring space-saving, low-voltage power distribution
- Industrial DC/DC Converters and point-of-load (PoL) regulators
- Battery-Powered Handhelds & Wearables needing low-voltage logic-level load switching
- Compact Motor Drives & Actuators requiring high burst current capability



The BSS806N 52m Ω 20V 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=BSS806N>

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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