



VISHAY SEMICONDUCTOR

Drive for Customer Satisfaction and New Advanced Technologies

Vishay Intertechnology, Inc. is one of the world's largest manufacturers of discrete semiconductors and passive electronic components. They are used in virtually all types of electronic devices and power electronics. Vishay's innovations in technology, successful acquisition strategy, product customization, and "one-stop-shop" service have made the Company a global industry leader. Modern electronic components need to incorporate high power densities in more and more compact designs – which Vishay focuses on both in semiconductors and passive components.



Selected Vishay components for INDUSTRY 4.0 power conversion applications.

Semiconductors

Vishay's breadth of semiconductor technologies, paired with its own foundry and packaging operations including high-power semiconductor packaging, provide an ongoing source of innovative components for the power electronics industry. The portfolio includes MOSFETs (low-voltage and high-voltage), ICs (power and analog), a wide range of diodes and



Selected Vishay components for assisted and autonomous driving, EV, HEV, and charging infrastructure.

rectifiers (fast and super-fast, single, tandem, and bridge), power semiconductor modules (MOSFETs, IGBTs, diodes, SCRs), and many different types of optoelectronic products such as sensors, couplers, and solid-state relays – many of which are automotive AEC-Q qualified. Vishay is a market and technology leader in power rectifiers, low-voltage power MOSFETs, and infrared sensors and components.

Passive Components

Robustness and reliability mark the passive components of Vishay. The Company offers a wide range of power and very high-power electronic components and customized parts, including high-power HVAC capacitors; film-RFI, DC-link, and electrolytic capacitors; and ceramic single-layer, multilayer, high-Q, RF, tantalum, and polymer capacitors for power converters, small and large drives, and power transmission. Resistive products manufactured by Vishay include a wide range of power ratings up to 4 MW for dynamic braking and high-power safety applications including forced air and

liquid-cooled assemblies. The Vishay resistor portfolio includes an almost complete range of technologies, including thin and thick film, metal oxide, carbon, polymer film, MELF, and wirewound and Power Metal Strip® technologies, as well as non-linear resistors, resistor networks, and arrays. High-power inductors, chokes, planar transformers, and customized magnetics complete the product offering. The portfolio is completed by a wide range of sensors and transducers for industrial and off-road applications.

Going Forward to New Horizons

Many innovations come from Vishay, including Power Metal Strip® resistors, thick film power resistors, IHLP® inductors; TrenchFET® MOSFETs, TMBS® rectifiers, wet tantalum capacitors, and capacitors for power electronics. Our breadth of component and packaging technologies, paired with our ability to customize, enable us to participate in technology trends such as Industry 4.0 and support alternative energy generation and transmission projects, drives and inverters for wind and photovoltaic systems, smart grids, meters, and power distribution infrastructure such as on- and off-board chargers, hybrid and fully electric vehicles, and autonomous driving. IoT is the ongoing challenge for more efficient and small form factor products including energy storage devices such as ENYCAP® hybrid supercapacitors.