

Vishay Siliconix



Vishay, through its Siliconix subsidiary, leads the industry in the development of power semiconductor products that improve the efficiency of power management circuitry in end products while reducing space requirements. As the world's number-one brand of low-voltage power MOSFETs (metal-oxide semiconductor field-effect transistors), Vishay Siliconix products play a key role in making handheld and portable electronic systems operate more efficiently from smaller and lighter battery packs. Higher-voltage Vishay Siliconix power MOSFETs are used for applications from electric motor control in industrial systems to converting power in the switches and routers that enable the world's communications networks. Vishay Siliconix power ICs address markets ranging from mobile communications and computing to the fixed telecom infrastructure and include switchmode regulators, linear regulators, and power management devices. A number of devices, built on specialized process flows, are purpose-made for the medical, automotive, and military markets.

Vishay Siliconix milestones include the first analog switch, the first analog multiplexer, the first small-outline power MOSFET (LITTLE FOOT®), and the first power MOSFETs built on Trench technology (TrenchFET®). This tradition of innovation continues with new silicon technologies designed to maximize power MOSFET performance. In dc-to-dc conversion and load switching, Vishay Siliconix leads the market with high-density TrenchFET silicon processes and innovative package options for better thermal performance (PowerPAK®, PolarPAK®), smaller footprints (ChipFET®, MICRO FOOT®, PowerPAK SC-70, PowerPAK SC-75), and integration of multiple devices (PowerPAIR®). Vishay Siliconix power ICs focus on delivering the optimal and appropriate level of integration for power management and conversion. Recent innovations include the industry's most powerful DrMOS solution for managing the core voltage in PCs, servers, and other CPU-based systems, and the new microBUCK™ dc-to-dc converter family, which combines the controller IC, MOSFETs, and bootstrap switch for a buck regulator in a tiny 4-mm² package. The Vishay Siliconix product portfolio now also features high-voltage planar MOSFETs acquired from International Rectifier.

Siliconix was founded in 1962. In 1998, Vishay acquired the Semiconductor Business Group of TEMIC, which included 80.4% of Siliconix. Vishay purchased the remaining 19.6% of Siliconix shares in 2005.