



www.vishay.com

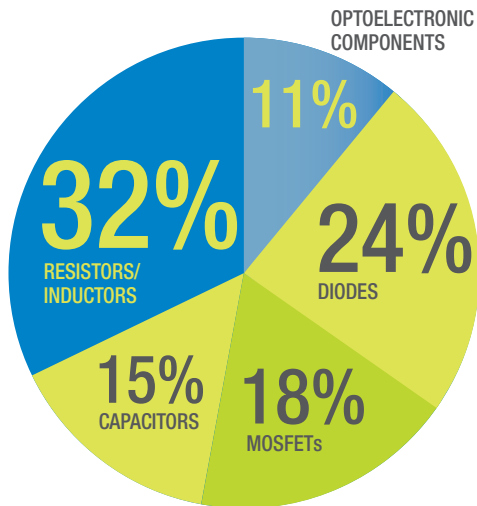
2017 ANNUAL REPORT



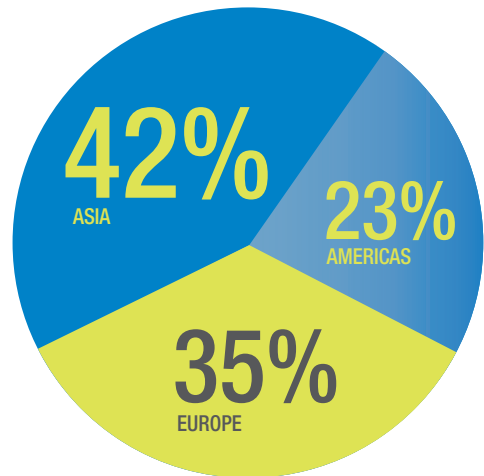
VISHAY INTERTECHNOLOGY, INC.

2017

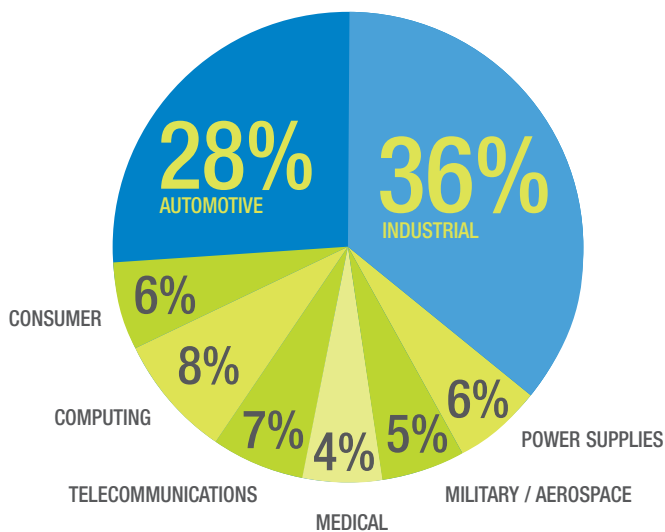
SALES BY SEGMENT



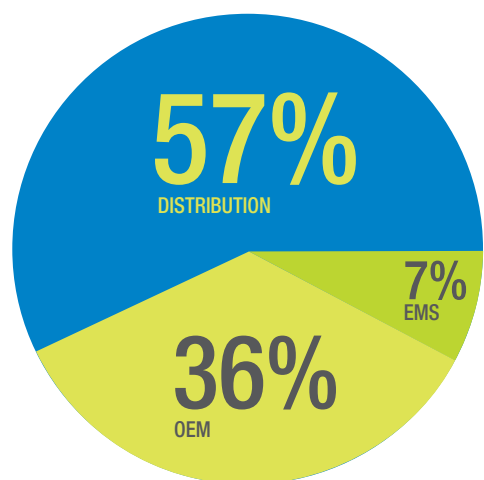
SALES BY REGION



SALES BY END MARKET



SALES BY CHANNEL





MARC ZANDMAN
Executive Chairman
of the Board



DR. GERALD PAUL
Chief Executive Officer

EXECUTIVE CHAIRMAN

After a successful performance in 2016, Vishay had an even better year in 2017. Our success during 2017 was driven by favorable economic conditions in all regions. We demonstrated our confidence in our strong long-term cash flow generation and strong balance sheet by authorizing a \$150 million stock buyback program, of which we spent approximately \$40 million in 2017. We also increased our quarterly cash dividend. These actions reflected continued confidence in our ability to enhance total stockholder return over the long term and our commitment to doing so.

Vishay declared quarterly dividends in February, May, August, and November 2017. The dividend of \$0.0675 declared in November reflected an 8% increase over the previous quarter's dividend.

In February 2017, Vishay appointed Mr. Raanan Zilberman to its Board of Directors. Raanan offers significant business experience to our Board, particularly in light of his leadership experience as CEO of several organizations with international operations and reach. Raanan also brings to the Board familiarity with the Vishay organization because of his tenure, from 2002 through 2004, as President of the Vishay Transducers business following Vishay's acquisition of Tedea Huntleigh.

During the 56 years since Vishay was founded in 1962, advances in technology have had a profound impact on society. Our smartphones are also computers that can outperform the large mainframe machines that were used in 1962. Complex electronic control systems in automobiles manage practically all key functions. Meanwhile, Internet of Things technology is in the process of changing the face of manufacturing and commerce.

One thing that has not changed over the years is Vishay's position as a technology leader, especially in the automotive and industrial growth markets. Our components are used in virtually all major market sectors. Vishay has remained an industry leader because it has remained strong and continued to innovate.

As I look forward to continued success in 2018 and beyond, I thank all Vishay employees for their commitment to the company. I also thank our customers, vendors, strategic business partners, and stockholders for their confidence and support.

CHIEF EXECUTIVE OFFICER

During the course of 2017, Vishay sales and profits increased significantly, making the year a very successful one for the Company. We experienced a high level of demand for our components in virtually all market segments. With its performance driven by increased sales volume, Vishay clearly demonstrated its ability to leverage its business model. We increased manufacturing capacities for key product lines, and continue to do so, mainly by pulling forward certain programs of our five-year Growth Plan. Another positive achievement was Vishay's generation of "free cash," which continued to be excellent. In 2017, Vishay generated "free cash" of \$200 million, our best performance in six years.

During the year, business conditions in all regions significantly exceeded our expectations. This is especially true for our key markets, automotive and industrial. Market demand exceeded available capacity in several of our product lines, which led to stretched lead times and increased backlogs. Asian markets were very strong, particularly for industrial equipment, energy infrastructure, and automotive equipment. European manufacturers in the automotive and industrial segments were able to capitalize on their traditional strengths. During the course of the year, business conditions in American markets improved steadily.

We are excited about the opportunities that accelerated market growth offer Vishay, especially in automotive and industrial applications.

The stock repurchase authorization announced by Vishay in August 2017 demonstrated our confidence in our long-term cash flow and strong balance sheet. It clearly showed that we are able to continue to invest in our Growth Plan and return capital to stockholders.

In 2017, we were once again able to offset the negative impact of inflation and price decline on our contributive margin through cost reduction and innovation.

Over the years, Vishay has consistently done well during both upturns and downturns in the global economy. Regardless of short-term trends, and whatever 2018 might bring, I am confident that Vishay will continue on a positive course. With that in mind, I thank all Vishay's employees, customers, vendors, strategic business partners, and stockholders for their faith in Vishay.



COMPANY ROOTS

Dr. Felix Zandman, with a loan from his cousin Alfred P. Slaner, founded Vishay in 1962 to develop and manufacture Bulk Metal[®] foil resistors. The Company was named after Dr. Zandman's ancestral village in Lithuania, in memory of family members who perished in the Holocaust. When Dr. Zandman passed away in 2011, he left a lasting legacy. His high standards and values are embedded in Vishay's culture. They positively influence the ethical business practices implemented by Vishay personnel across the globe every day.

During the 1960s and 1970s, Vishay became known as the world's leading manufacturer of foil resistors, PhotoStress[®] products, and strain gages. These products later became part of Vishay Precision Group (NYSE: VPG), which was spun off as an independent, publicly traded company in 2010.

ACQUISITIONS

Vishay has made a number of strategic acquisitions over the years. These include Dale[®] Electronics, Draloric[®] Electronic, Sfernice, Sprague[®] Electric, Roederstein[®], Vitramon[®], BCcomponents[®] (including Beyschlag[®]), the Semiconductor Business Group of TEMIC[®] (Telefunken and Siliconix[®]), the infrared component business of Infineon Technologies, General Semiconductor[®], selected product lines from International Rectifier[®], Huntington Electric, HiRel Systems, MCB Industrie, Holy Stone Polytech, and Capella Microsystems. Vishay continues to explore opportunities for acquisitions that fit its business model.

THE COMPANY

GLOBAL INDUSTRY LEADER

Vishay passive components and semiconductors are used by virtually all major manufacturers of electronic products worldwide, in the industrial, power supply, automotive, military, aerospace, medical, computing, telecommunications, and consumer markets. Vishay components are found inside the products and systems used every day, from automobiles to airplanes to solar power systems to smartphones to pacemakers. In addition, Vishay has demonstrated an ability to customize components to meet specific customer needs.

Macroeconomic growth drivers such as connectivity, mobility, and sustainability generate the need for the types of components manufactured by Vishay.

Vishay's international footprint includes manufacturing plants in the Americas, Asia, Europe, and Israel, as well as sales offices worldwide. Vishay's technology innovations, acquisition strategy, focus on cost control, "one-stop shop" service to customers, and custom design capabilities have made it a global industry leader.

PASSIVE COMPONENTS

Passive components do not require a power supply to handle the signals that pass through them. They are used to store electrical charges, limit or resist electrical current, and help in filtering, surge suppression, measurement, timing, and tuning applications.



RESISTORS

Resistors limit current flow. Vishay manufactures many different types of resistive products, including single (discrete) resistors based on film, wirewound, Power Metal Strip®, and other technologies, as well as resistor networks and arrays, in which multiple resistors are combined in a single package. Vishay also manufactures battery management shunts, chip fuses, pyrotechnic initiators/igniters, variable resistors (including potentiometers), and non-linear resistors (including thermistors, which are used for current protection and temperature sensing). Vishay's resistor portfolio includes components with ultra-high precision, very high stability, and high power.



CAPACITORS

Capacitors store energy and discharge it when needed. Applications include power conversion, direct current (DC)-linking, frequency conversion, bypass, decoupling, and filtering, and serving as backup energy sources. Types of capacitors manufactured by Vishay include tantalum (solid, wet, and polymer), ceramic (both multilayer chip and disc), film, power, heavy-current, aluminum electrolytic, and, most recently, hybrid energy storage capacitors and supercapacitors.



INDUCTORS AND TRANSFORMERS

Inductors use an internal magnetic field to change alternating current (AC) phase, resist AC current, and filter out unwanted electrical signals. Vishay innovations include IHLP® power inductors, which outperform competing devices. Transformers are made up of at least two inductors on a common core of magnetic material. Transformers increase or decrease AC voltage or AC currents.

SEMICONDUCTORS

Semiconductors typically perform the function of switching, amplifying, rectifying, or transmitting electrical signals. Semiconductors are referred to as “active” components because they require power to function.



DIODES AND RECTIFIERS

Diodes are used in a wide range of electronic systems to route, regulate, and block radio frequency (RF), analog, and power signals and also to protect systems from surges or electrostatic discharge (ESD) damage, as well as provide electromagnetic interference (EMI) filtering. Rectifiers are used to convert AC into DC, a unidirectional current required for operation of many power electronic systems. For example, a bridge rectifier is used in a phone charger to change the AC voltage from a wall outlet to a specific DC voltage.



INFRARED OPTOELECTRONICS

Optoelectronic components emit light, detect light, or do both. Vishay's broad range of optoelectronic components includes infrared (IR) emitters and detectors; IR remote control receivers; optical sensors for detection; optocouplers and solid-state relays for circuit isolation; LEDs for light sources; 7-segment displays; IR data transceiver modules for wireless, two-way data transfer; and custom products.



MOSFETs

Metal oxide semiconductor field-effect transistors (MOSFETs) function as solid-state switches to control power. They enable power conversion into levels required by other components or act as load switches to turn off specific functions or power supplies in smartphones when they are not in use, thereby extending battery life. Vishay offers low-voltage TrenchFET® power MOSFETs, medium-voltage power MOSFETs, high-voltage planar MOSFETs, high-voltage superjunction MOSFETs, and automotive-grade MOSFETs.



INTEGRATED CIRCUITS (ICs)

Integrated circuits (ICs) combine the functions of multiple semiconductors and passive components on a single chip. IC products from Vishay are focused on analog signal switching and routing, power conversion, power management, and integrated smart power solutions. They are used in end products such as tablets, notebooks, and desktop computers; game consoles; smartphones; fixed telecommunications systems; and other products and systems.

DIVERSE MARKETS

Vishay supports customers in virtually every major market sector. Types of components manufactured by Vishay are found inside the electronic products and systems used every day, around the world.



AUTOMOTIVE

Components manufactured by Vishay are used in a broad range of automotive systems including engine control and injector systems; fuel pump control; exhaust emission control; steering, braking, and active safety control; transmission; stop/start; lighting; airbag control; heating/ventilation/air conditioning; infotainment; C2X connected car communications; advanced driver assistance; navigation; and battery management. Vishay components are used in systems in electric and hybrid electric vehicles such as traction inverters, integrated electrical machines, battery management, battery charging, and energy recuperation. Vishay manufactures many components that can withstand high temperatures and peak transients and are ideal for use in under-the-hood applications and higher-voltage environments.

INDUSTRIAL

Vishay components help manage and convert power, support power backup and energy harvesting solutions, drive and control motors, sense temperature, provide current measurement, and perform other tasks in factory automation, high-power furnaces, machine-to-machine communications, electric power grid and power distribution systems, wind and solar power systems, and smart meters. Components from Vishay are also used in oil and gas exploration equipment, trains, escalators and elevators, heating and air conditioning systems, test and measurement equipment, lighting ballasts, smoke detectors, power tools, welding equipment, 3D printers, manufacturing and logistics robotic systems, and other industrial equipment and systems. Vishay components are well suited for the Industry 4.0 transition and the Internet of Things, which provides vital links in a wide range of industrial applications.



POWER SUPPLIES

MILITARY AND AEROSPACE

Adapters, converters, battery chargers, and uninterruptible power supplies (UPS) handle electric current from main power grids and batteries and adjust and control it for use by a wide variety of devices — from small, portable products to large industrial equipment. Power supplies must meet various power quality, efficiency, energy saving, and safety regulations. Their capabilities range from very low (milliwatts) to very high (kilowatts). Vishay components are used in rectification; power factor correction; galvanic insulation; temperature sensing, storage, and transformation; EMI suppression; inrush protection; and other applications in power supplies.

Vishay manufactures one of the industry's broadest lines of military-qualified resistors and capacitors, as well as a number of other components that meet the stringent needs of military and aerospace customers for high-reliability performance. Components manufactured by Vishay are used in applications in flight, cockpit, and cabin equipment in aircraft and helicopters; unmanned aerial systems; drones; navigation and weather satellites; radar and sonar units; radio and satellite communications; guidance systems; deep space exploration; and more. For example, Vishay diodes, rectifiers, thermistors, LCD displays, and inductors are used in flight control computers.

DIVERSE MARKETS

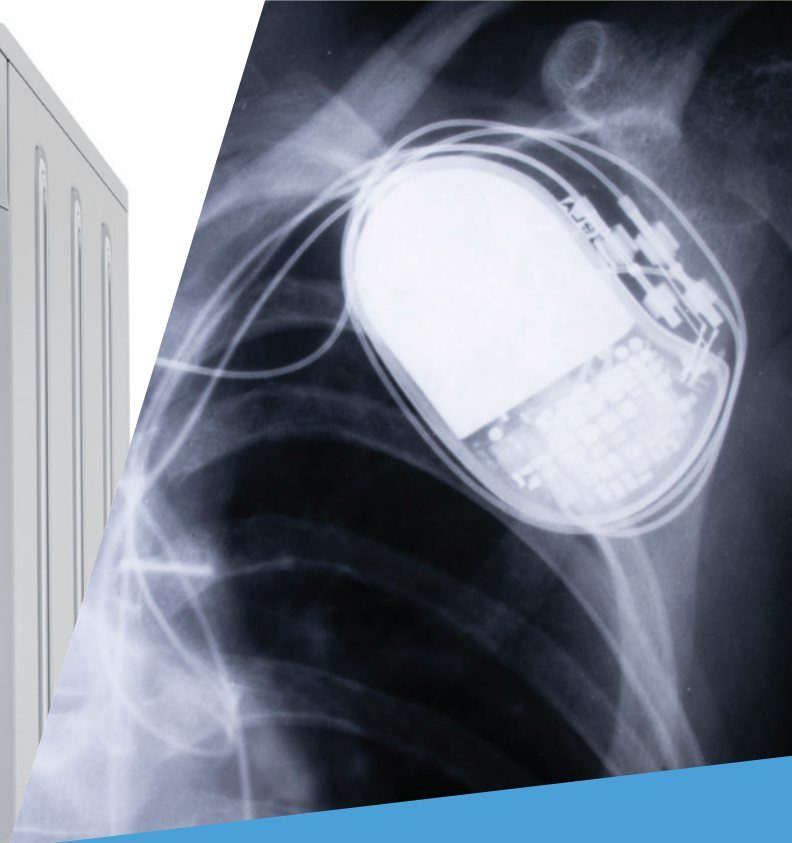


COMPUTING

Vishay components are found in notebooks, tablets, desktop computers, embedded systems, solid-state discs, switches and routers, and network servers. They manage power, filter out unwanted electrical signals, provide ESD protection, enable power backup, and perform other important circuit functions. In portable computing devices, they convert power; monitor power usage; extend battery life; enable short-range, two-way, wireless connectivity; and support other functions. They also are found in peripherals including printers, photocopiers, and wireless chargers. Vishay advantages include high surge current capabilities, high power ratings, power efficiency, and long life.

TELECOMMUNICATIONS

Vishay passive components and semiconductors are used in portable devices and telecommunications infrastructure. Vishay components for handheld telecommunications devices and wearables support a number of functions including radio frequency modulation, power amplification, transmission, receiving, charge control, DC/DC conversion, load control, sensing, audio signal conditioning, and peripheral connectivity. For example, Vishay components improve efficiency and increase battery life in smartphones. In modern 4G and 5G systems, high-frequency resistors and capacitors are used for signal filtering and impedance matching. Vishay components also are used for EMI filtering, line card protection, and other applications in transmission systems, base stations, and access infrastructure.



CONSUMER

Types of components manufactured by Vishay are used in lighting and in home appliances and systems including air conditioners, washing machines and dryers, refrigerators and freezers, robotic vacuum cleaners, and lawn mowers. They are used in smart home and home automation systems to control lights, switch appliances, and monitor and regulate heating and air conditioning equipment. In addition, they are found in entertainment and lifestyle products including TVs, e-book readers, game consoles, virtual reality/augmented reality (VR/AR) devices, set-top boxes, smart watches, fitness bands, and more. For example, Vishay components are used in LCD TVs for power conversion, EMI filtering, rectification, power factor correction, analog/digital signal switching, audio amplification, interface protection, infrared receiving, and gesture recognition.

MEDICAL

High tech medical electronics play an important role in people's lives. From large equipment such as X-ray machines and MRI systems to smaller devices such as hearing aids and finger pulse rate monitors, medical products and systems use types of components manufactured by Vishay. These components are used in nerve stimulators, pacemakers, defibrillators, patient monitoring systems, instrumentation equipment, communications equipment, blood pressure cuffs, blood glucose meters, and more. Vishay is a leading manufacturer of telemetry coils for pacemakers and defibrillators and transformers for defibrillators, as well as capacitors for implantable devices and hearing aids.

VISHAY'S BLUE CHIP CUSTOMERS AND DISTRIBUTORS

ABB®
Apple®
Arrow®
Avnet®
Benchmark™
Bosch®
Boston Scientific®
BYD®
Celestica®
Cisco®
Continental®
Delphi®
Delta®
Denso®
Digi-Key®
Ericsson®
Flex®
Foxconn®
Future®
General Electric®
Gree®
Harman®
Hella®
Honeywell®
Huawei™
Jabil®

Keboda®
LG Electronics®
Lite-On®
Medtronic®
Nexty
Philips®
Plexus®
Quanta®
Rutronik®
Samsung®
Sanmina®
Schneider™
Seagate®
Siemens®
Sony®
Tesla®
TTI®
Valeo®
Weikeng
Wistron®
WPG®
Zenitron
ZF® Group
...and others

RECENT INDUSTRY AWARDS

- ACE (Annual Creativity in Electronics) Award
- Flex Preferred Supplier Award
- EDN Hot 100 Product Award
- *Electronic Products* Product of the Year Award
- *Selezione di Elettronica* Innovation Award
- *Electronic Products China* Top-10 Power Product Award
- Delphi Automotive Pinnacle Awards for Supplier Excellence
- TTI Supplier Excellence Awards: The Americas, Europe, and Asia
- Flex Strategic Supplier Award
- SPDEI (French Association of Distributors of Electronic Components) Award
- *Electronic Design* Top 101 Components

DRIVING STOCKHOLDER VALUE

Driving stockholder value is what Vishay focuses on. It accomplishes this through organic growth supplemented by targeted acquisitions, a regular cash dividend program, and opportunistic stock buybacks, while at the same time maintaining a prudent capital structure. Vishay continues to be a reliable generator of “free cash” (the amount of cash generated from operations in excess of capital expenditures and net of proceeds from the sale of assets). Vishay has consistently generated in excess of \$100 million in “free cash” in each of the past twelve years.

CORPORATE INFORMATION

BOARD OF DIRECTORS

Marc Zandman

Executive Chairman of the Board
Chief Business Development Officer
Vishay Intertechnology, Inc.

Dr. Abraham Ludomirski

Founder and Managing Director of
Vitalife Fund, a venture capital company
specializing in high tech electronic
medical devices

Frank D. Maier

Retired Managing Director
TEMIC GmbH

Dr. Gerald Paul

President
Chief Executive Officer
Vishay Intertechnology, Inc.

Ronald M. Ruzic

Retired Group President
BorgWarner Automotive, Inc.

Ziv Shoshani

President
Chief Executive Officer
Vishay Precision Group, Inc.

Timothy V. Talbert

Senior Vice President
Credit and Originations Lease Corporation
of America ("LCA")
President
LCA Bank Corporation

Thomas C. Wertheimer

Accounting Consultant,
previously partner of
PricewaterhouseCoopers LLP

Ruta Zandman

Private Stockholder
Vishay Intertechnology, Inc.

Raanan Zilberman

President
Chief Executive Officer
Caesarstone Ltd.

HONORARY EXECUTIVE CHAIRMAN OF THE BOARD

Dr. Felix Zandman

(Deceased June 4, 2011)

EXECUTIVE OFFICERS

Marc Zandman

Executive Chairman of the Board
Chief Business Development Officer

Dr. Gerald Paul

President
Chief Executive Officer

Johan Vandoorn

Executive Vice President
Chief Technical Officer
Deputy to the CEO

Lori Lipcaman

Executive Vice President
Chief Financial Officer

David Valletta

Executive Vice President
Worldwide Sales

Clarence Tse

Executive Vice President
Business Head Semiconductors

Joel Smejkal

Executive Vice President
Business Head Passive Components

Werner Gebhardt

Executive Vice President
Human Resources

CORPORATE OFFICE

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Malvern, PA 19355-2120
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Fax: 610-296-0657
www.vishay.com

ANNUAL MEETING

May 15, 2018 at 9:30 a.m.
Vishay Intertechnology, Inc.
Auditorium
63 Lancaster Avenue
Malvern, PA 19355-2120

STOCKHOLDER ASSISTANCE

For information about stock transfers,
dividend payments, address changes,
account consolidation, registration changes,
lost stock certificates, and Form 1099, please
contact the Company's Transfer Agent and
Registrar.

Transfer Agent and Registrar

American Stock Transfer & Trust Company
59 Maiden Lane
New York, NY 10038
Phone: 800-937-5449
Fax: 718-921-8331
Email: info@amstock.com
For other information or questions, please
contact Investor Relations at 610-644-1300.

Common Stock

Ticker symbol: VSH
The common stock is listed and
principally traded on the New
York Stock Exchange.



Duplicate Mailings

If you receive more than one Annual Report
and Proxy Statement and wish to help
us reduce costs by discontinuing multiple
mailings, please contact our Transfer Agent
American Stock Transfer & Trust Company.

Electronic Proxy Materials

You can receive Vishay Intertechnology's
Annual Report and proxy materials
electronically, which will give you immediate
access to these materials, and will save the
Company printing and mailing costs. If you
are a registered holder (you own the stock in
your name), and wish to receive your proxy
materials electronically, please go to www.icsdelivery.com/vsh.

If you are a street holder (you own this stock
through a bank or broker), please contact
your broker and ask for electronic delivery of
Vishay Intertechnology's proxy materials.



VISHAY INTERTECHNOLOGY, INC.

A **WORLD OF**
SOLUTIONS™

**CORPORATE
HEADQUARTERS**
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