

# History of Innovation

Contributing to the advancement and progress of culture by boldly taking on the challenge of offering high-quality products and manufacturing

ROHM, which started out as a specialized manufacturer of small resistors, has been broadening its field of business while contributing to the advancement of society and culture in line with its Company Mission. We aim to continue contributing to improved living standards and sustainable social development by harnessing our electronics technology and our in-house technical capabilities to solve challenges that society faces.

## 1950s

Expanding demand from manufacturers of consumer products

- Transistor radio
- Color TV



### > The challenge of producing radio parts:

Developing the first small resistor in Japan

ROHM's founder, Kenichiro Sato, was motivated to set up the company after he took a part-time job repairing radios. Feeling that simply doing repairs was boring, Sato wanted to make his own products, so he began developing a resistor, since resistors were indispensable components in the vacuum-tube radios of that time. In 1954, he obtained utility-model rights for a "parallel-lead fixed resistor," the first small resistor in Japan, and as soon as he graduated from university, he founded Toyo Electronics Industry Corporation. As demand for transistor radios boomed, Sato's resistor eventually won a 60% share of the domestic resistor market.

- 1954** Founded Toyo Electronics Industry  
Obtained utility model for small-sized resistors
- 1958** Established Toyo Electronics Industry Corporation

## 1960 to 1970s

Increasing global demand for ICs

- Portable cassette audio
- VTR
- CD player



### > Facing the onslaught of ICs:

The challenge of developing semiconductors

In 1964, resistors were at their peak and few people had ever heard of "ICs." In that year, the company's chief technology officer attended a lecture on ICs where he heard it said that in the near future, ICs might replace resistors. Sensing a threat, Sato decided to take up the challenge of the new field of "ICs" while continuing the resistor business. In 1967, ROHM completed its first semiconductor product, and in 1971 the company committed itself in earnest to IC development by becoming the first Japanese company to set up shop in Silicon Valley.

- 1967** Started development and sales of transistors and switching diodes
- 1969** Started development of ICs
- 1979** Changed corporate trademark from R.ohm to ROHM

## 1980 to 1990s

Advancing of the digitalization of society

- Digital camera
- Personal computer
- DVD
- Mobile phone



### > Contributing to technical innovation in digital devices as a manufacturer of custom ICs

At a time when many major electronics manufacturers had an in-house semiconductor division, ROHM was essentially the only semiconductor manufacturer that was independent. The company's strengths lay in quickly and reliably responding to the latest needs of manufacturers in a variety of industries and being able to look one step ahead and develop products for foreseen future needs. ROHM thrived as a manufacturer of custom ICs by offering a product lineup and organizational structure that could meet a broad range of market needs, producing everything from semi-custom ICs to full-custom ICs.

- 1981** Changed registered company name to ROHM Co., Ltd.
- 1982** Started development and sales of digital transistors
- 1985** Commercialization of microcontrollers, gate arrays, and VTR digital servos
- 1989** Listed on the First Section of the Tokyo Stock Exchange

## 2000s

Globalization of the electronics market

- LCD TV
- Car navigation system



### > Boosting R&D and embracing M&A

After the bursting of the IT bubble, Japan's economy changed radically. ROHM, whose growth had come mainly from the Japanese consumer electronics market, entered difficult times. Society was also undergoing major changes, and the company devoted effort to adding more R&D topics, entering into collaboration with universities, engaging in mergers and acquisitions, and shifting its business portfolio. ROHM's primary focus was on aggressively entering the automotive market; the company gradually expanded its automotive product lineup to include items such as car audio products that capitalized on its consumer electronics technology. The company also focused on overseas markets, making its product-development process more globally oriented and strengthening its worldwide setup for boosting sales.

- 2008** Acquired OKI SEMICONDUCTOR Co., Ltd. (now LAPIS Semiconductor Co., Ltd.) as a subsidiary
- 2009** Acquired SiCrystal GmbH, a German SiC wafer manufacturer, as a subsidiary

## 2010s

Growing needs for energy savings and electrification

- Smartphone
- Tablet PC
- Hybrid electric vehicle



### > Transforming the business portfolio: Ramping up development for the automotive and industrial equipment markets

The company accelerated its shift to the automotive and industrial equipment markets. It also began producing power devices in a committed way, and in 2010 it was the first in the world to succeed at mass-producing SiC MOSFETs\*. To make sure its analog ICs and discrete met the quality standards for automotive equipment, the company revamped all its processes, from development through to manufacturing, and broadened its lineup of products for automotive devices. ROHM's devices also came to be used in new types of products, starting with infotainment applications like GPS navigation systems and finding their way into body systems (e.g., mirror controls) and drive systems (e.g., powertrains).

- 2010** Started mass production and sales of SiC power devices
- 2012** Started development and mass production of isolated gate driver ICs
- 2013** Started development and mass production of shunt resistors
- 2015** Started development and mass production of the world's first trench-type SiC MOSFET

## 2020s

Trending toward decarbonization and a recycling-oriented society

- Electrified vehicle (xEV)
- Charging station

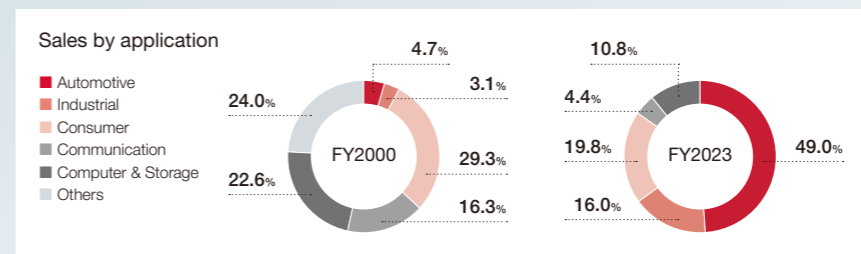


### > Helping alleviate environmental impact by manufacturing products that contribute to energy savings and miniaturization

Decarbonization is a pressing issue for society, and countries around the world are switching from gasoline-powered to electrified vehicles. Semiconductors play an increasing role in reducing energy consumption, and with expectations from society and customers growing, we are focusing on developing power and analog semiconductors in accordance with our business vision. In addition to expanding our development and mass-production system for power devices, particularly SiC, we are also speeding up how we supply power solutions, including peripheral components such as isolated gate driver ICs that maximize device performance.

- 2020** Developed 4th Gen SiC MOSFETs featuring industry-leading low on resistance
- 2021** Formulated the Medium-Term Management Plan "Moving Forward to 2025"
- 2022** Transferred from the First Section of the Tokyo Stock Exchange to the Prime Market

\* Explained in the Glossary



Net sales/Operating profit

