Global Power Semiconductor Market: Analysis By Type (Power IC, MOSFET, IGBT, Diode, Thyristor, and BJT), By Application (Automotive, Consumer Electronics, Industrial, Telecommunication, and Other), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2028

March 2023

Daedal Research

Global Power Semiconductor Market: Coverage

- Executive Summary and Scope
- Introduction/Market Overview
- Global Market Analysis
- Regional Market Analysis
- Impact Of COVID 19
- Dynamics
- Competitive Landscape
- Company Profiling

Global Power Semiconductor Market: Coverage

Scope of the Report

Attributes	Details
Title	Global Power Semiconductor Market: Analysis By Type (Power IC, MOSFET, IGBT, Diode, Thyristor, and BJT), By Application (Automotive, Consumer Electronics, Industrial, Telecommunication, and Other), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2028
Coverage	Global and Regional
Regional Coverage	Asia Pacific (China, Japan, and the Rest of the Asia Pacific), Europe (Germany, Italy, UK, France, and Rest of the Europe), North America (the US, Canada, and Mexico), and the Rest of the World
Market Influencing Variables	Growth Drivers, Challenges, Market Trends
Forecast Period of Market	2023-2028
Competition in the Market	Concentrated
Key Players	Infineon Technology, ON Semiconductor Corporation, STMicroelectronics N.V., Mitsubishi Electric Corporation, Toshiba Corporation, Fuji Electric Co., Ltd., Vishay Intertechnology, Inc., Renesas Electronics Corporation, ROHM Semiconductor, Texas Instruments Incorporated, Nexperia, and StarPower Semiconductor

Global Power Semiconductor Market: Coverage

Executive Summary

Power semiconductors are used to rectify and amplify electrical signals or turn the flow of electricity on and off. Unlike regular semiconductors, however, these devices are designed to handle high electrical currents and high voltages of up to several gigawatts, which is their main difference from other semiconductor devices. The global power semiconductor market was valued at US$46.72 billion in 2022. The market value is expected to reach US$62.26 billion by 2028, growing at a CAGR of 4.90% over the projected period of 2023-2028.

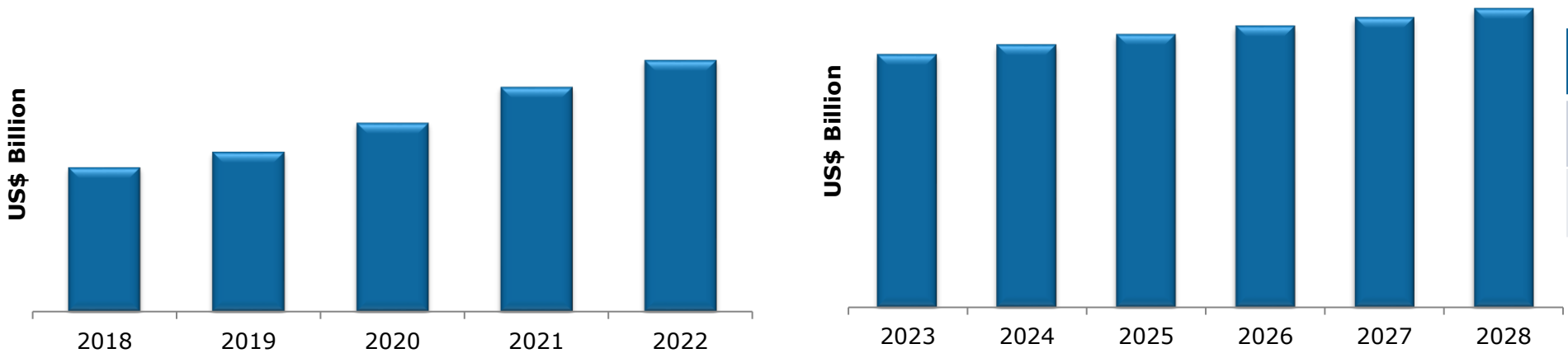
The global power semiconductor market can be bifurcated based on the type (Power IC, MOSFET, IGBT, Diode, Thyristor, and BJT), and application (Automotive, Consumer Electronics, Industrial, Telecommunication, and Others). In 2022, Power IC held the major share of the market. On the other hand, Asia Pacific dominate the market in 2022.

The COVID-19 pandemic has had a significant impact on the power semiconductor industry's growth. The pandemic has caused disruptions in global supply chains, making it more difficult to source raw materials and manufacturing equipment. However, as lockdown restrictions were normalized in the second half of 2020, the demand for power semiconductors like IGBT and MOSFET returned to the pre-pandemic level. The pandemic has highlighted the importance of energy efficiency, and there may be an increased demand for power semiconductor products that can help reduce energy consumption and costs. On the hand, the pandemic has accelerated the adoption of digital technologies, and there may be an increased demand for power semiconductor products that can support these technologies, such as wide bandgap semiconductors (e.g. SiC and GaN).

The global power semiconductor market observed progressive growth in the past few years and anticipations are made that during the forecasted period (2023-2028), the market would further augment at an escalating growth rate. The global power semiconductor market growth is predicted to be supported by numerous growth drivers such as increasing demand for electric vehicles (EVs), rising adoption of industrial automation, rising demand for consumer electronics, increasing demand for renewable energy, increasing disposable income, rising smart grid market, increasing role of power semiconductor in rail transportation, and many other factors. Conversely, the market growth would be negatively impacted by various challenges such as high development cost, supply chain disruptions, power failure, etc. Moreover, the market growth would succeed in various market trends like increasing auto electrification, the advent of 5G networks, rising inverterization rate of home appliance, rising demand for wide bandgap (WBG) semiconductors, increasing demand for miniaturized power semiconductors, etc.

Power Semiconductor Market: Global Analysis

Global Power Semiconductor Market by Value

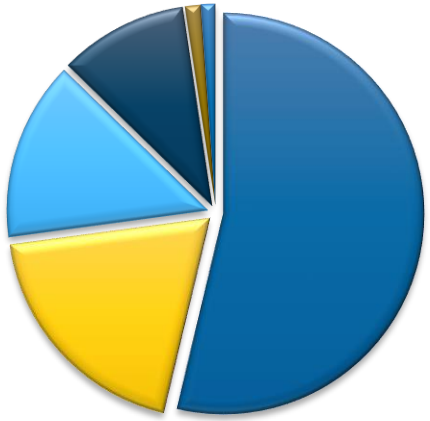


CAGR	
2018-2022	xx%
2023-2028	xx%

Global power semiconductor market was valued at US$... billion in 2022 and is anticipated to reach up to US$... billion by 2028 from US$... billion in 2023, with a CAGR of xx%.

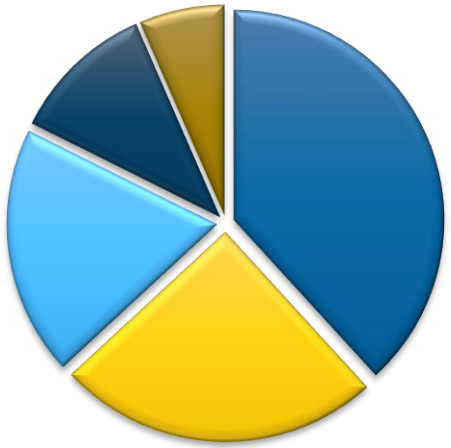
Power Semiconductor Market: Global Analysis

Global Power Semiconductor Market by Type; 2022



Type	Share
Power IC	xx%
MOSFET	xx%
IGBT	xx%
Diode	xx%
Thyristor	xx%
BJT	xx%

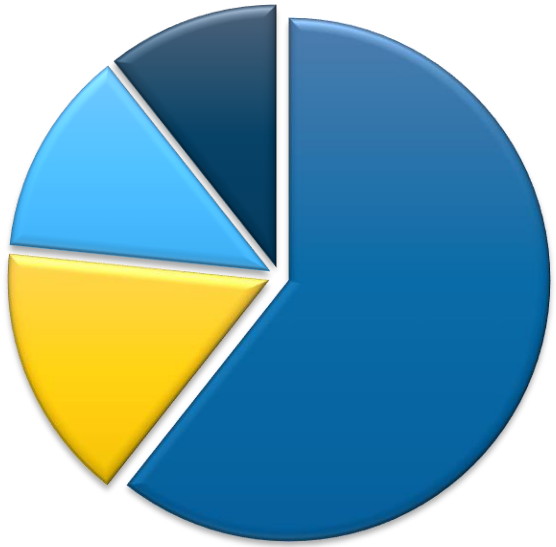
Global Power Semiconductor Market by Application; 2022



Application	Share
Automotive	xx%
Consumer Electronics	xx%
Industrial	xx%
Telecommunication	xx%
Others	xx%

Power Semiconductor Market: Global Analysis

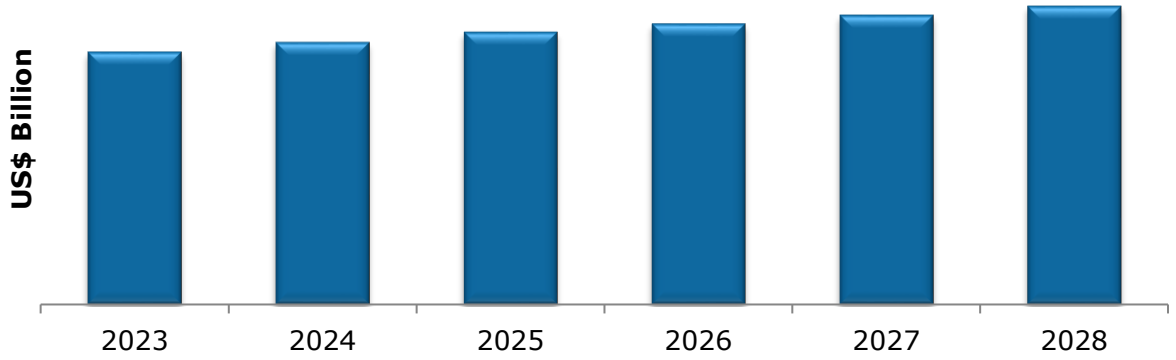
Global Power Semiconductor Market by Region; 2022



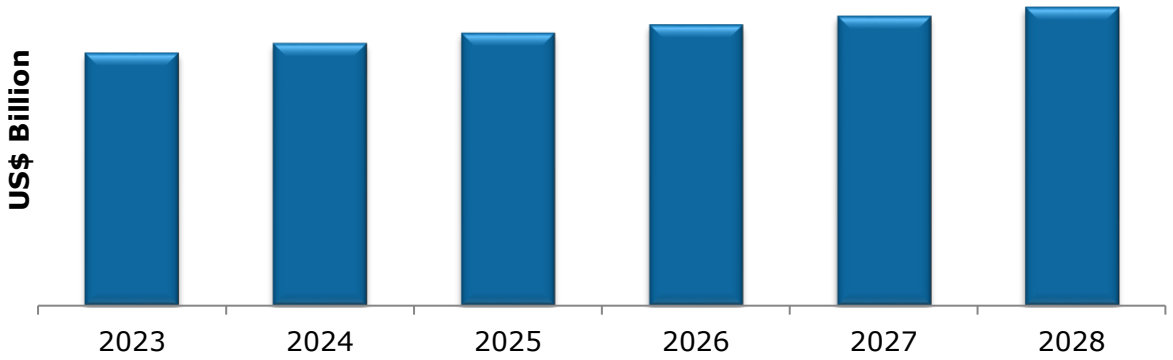
- Asia Pacific, xx%
- Europe, xx%
- North America, xx%
- Rest of World, xx%

Power Semiconductor Market: Type Analysis

Global Power IC Semiconductor Market by Value



Global MOSFET Power Semiconductor Market by Value



Type	CAGR (2023-2028)
Power IC	xx%
MOSFET	xx%
IGBT	xx%
Diode	xx%
Thyristor	xx%
BJT	xx%

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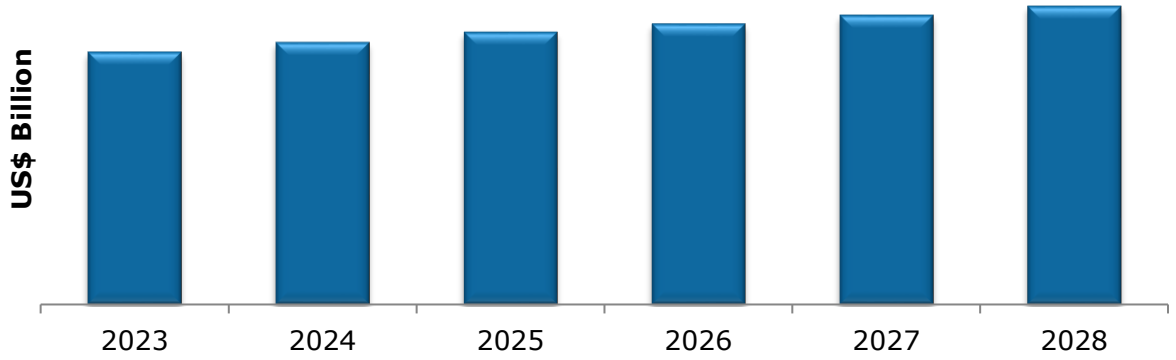
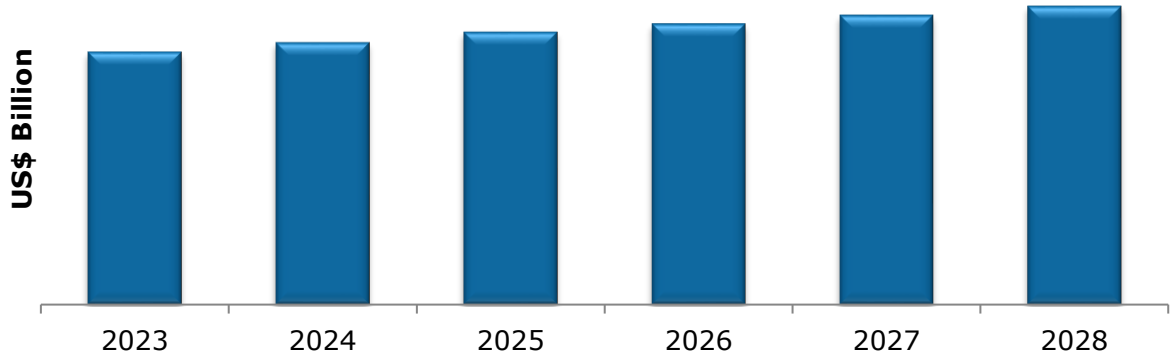
Power Semiconductor Market: Application Analysis

Global Automotive Power Semiconductor Market by Value



Global Consumer Electronics Power Semiconductor Market by Value



Application	CAGR (2023-2028)
Automotive	xx%
Consumer Electronics	xx%
Industrial	xx%
Telecommunication	xx%
Others	xx%

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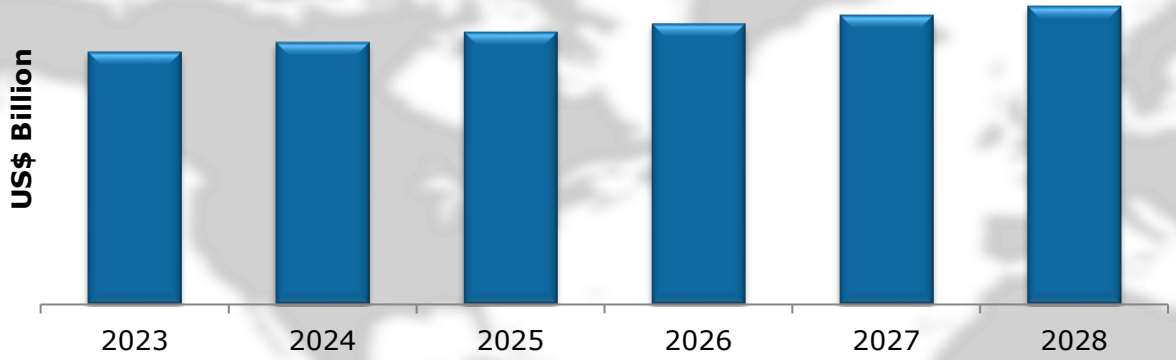
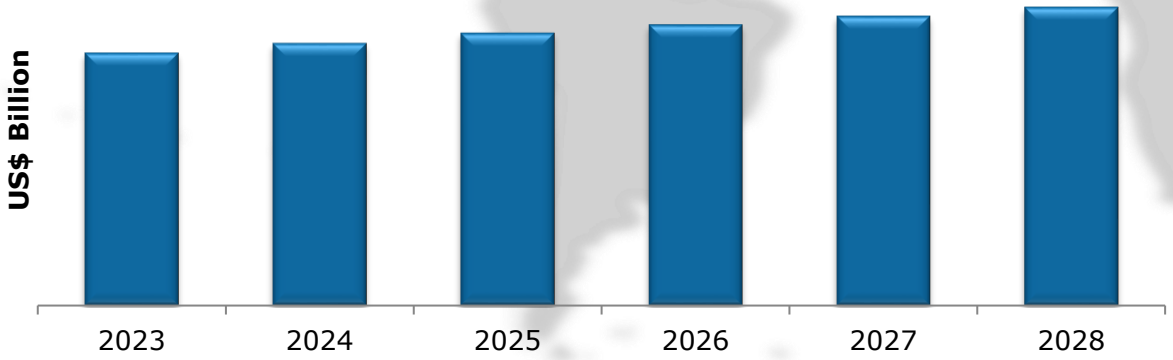
Power Semiconductor Market: Regional Analysis

Asia Pacific Power Semiconductor Market by Value



Europe Power Semiconductor Market by Value



Region	CAGR (2023-2028)
Asia Pacific	xx%
Europe	xx%
North America	xx%
Rest of World	xx%

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Asia Pacific Power Semiconductor Market: An Analysis

Asia Pacific Power Semiconductor Market by Region; 2022

Region	Share (2022)	CAGR (2023-2028)
China	xx%	xx%
Japan	xx%	xx%
Rest of Asia Pacific	xx%	xx%

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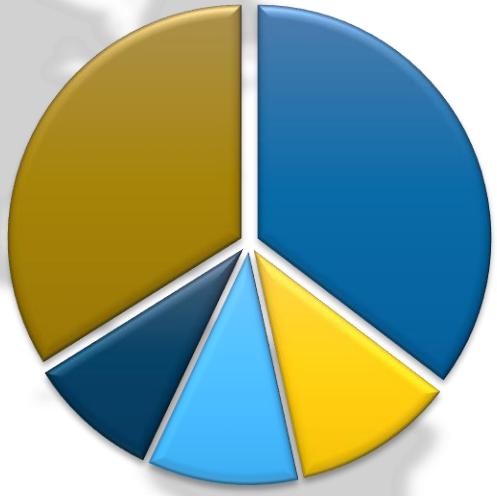
Europe Power Semiconductor Market: An Analysis

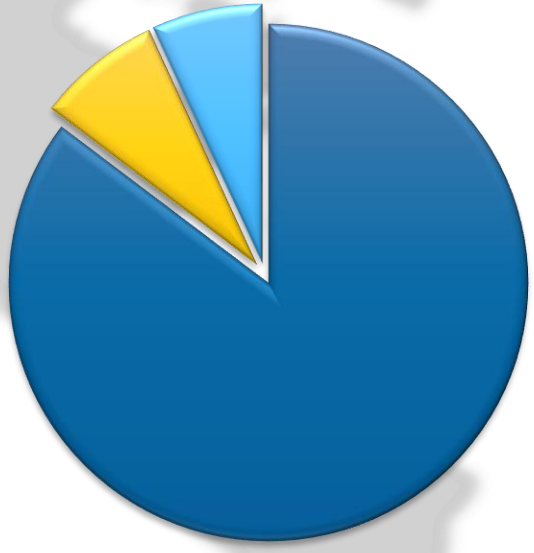
Europe Power Semiconductor Market by Region; 2022



Region	Share (2022)	CAGR (2023-2028)
Germany	xx%	xx%
Italy	xx%	xx%
UK	xx%	xx%
France	xx%	xx%
Rest of Europe	xx%	xx%

North America Power Semiconductor Market: An Analysis

North America Power Semiconductor Market by Region; 2022



Region	Share (2022)	CAGR (2023-2028)
The US	xx%	xx%
Canada	xx%	xx%
Mexico	xx%	xx%

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Global Power Semiconductor Market: Dynamics

Growth Driver

- Increasing demand for electric vehicles (EVs)
- Rising adoption of industrial automation

Challenges

- High development cost
- Supply chain disruptions

Market Trends

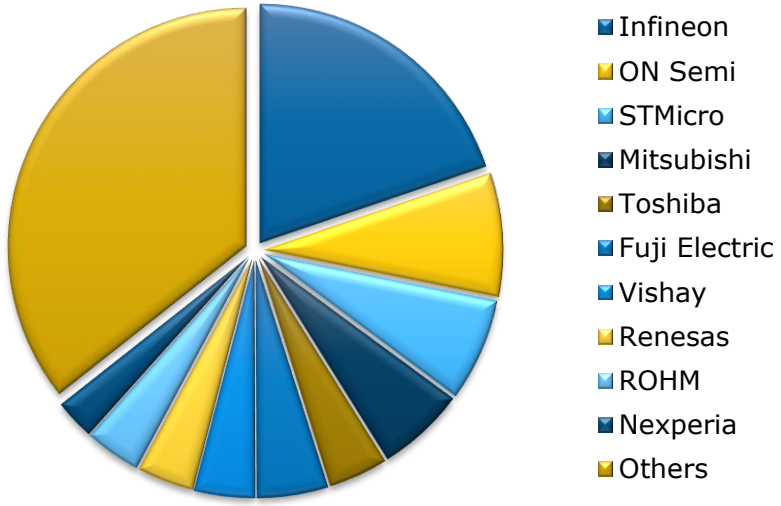
- Rising inverterization rate of home appliance
- Rising demand for wide bandgap (WBG) semiconductors

Global Power Semiconductor Market: Competitive Landscape

Players Profiled

- Infineon Technology
- ON Semiconductor Corporation
- STMicroelectronics N.V.
- Mitsubishi Electric Corporation
- Toshiba Corporation
- Fuji Electric Co., Ltd.
- Vishay Intertechnology, Inc.
- Renesas Electronics Corporation
- ROHM Semiconductor
- Texas Instruments Incorporated
- Nexperia
- StarPower Semiconductor

Global Power Semiconductor Players by Market Share; 2022 (Percentage, %)



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