

# High Voltage MOSFET Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

<https://marketpublishers.com/r/HCAD6A93D3D6EN.html>

Date: November 2023

Pages: 144

Price: US\$ 2,499.00 (Single User License)

ID: HCAD6A93D3D6EN

## Abstracts

The global high voltage MOSFET market size reached US\$ 4.2 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 6.1 Billion by 2028, exhibiting a growth rate (CAGR) of 6.4% during 2022-2028.

High voltage metal-oxide semiconductor field-effect transistors (MOSFETs) refer to a kind of super junction MOSFET that operates at higher voltages. It consists of various silicon-based semiconductor components used for switching or amplifying electronic signals and three insulated terminals, namely source, gate and drain, for voltage conversion. In comparison to the traditionally used MOSFETs, these variants offer various benefits, such as minimal gate-oxide leakage, high power density and enhanced output resistance. As a result, it finds extensive applications across various industries, such as industrial power, electronics and automotive.

Increasing industrial automation and the growing demand for electrical systems with high energy efficiencies, represent as the key factors creating a positive impact on the market. Furthermore, the widespread product adoption for manufacturing automobile electronic components is also driving the market growth. These MOSFETs are extensively used in hybrid and electronic vehicles (H/EVs) to reduce heat dissipation and semiconductor module size, and an improved fuel efficiency of the vehicle. In line with this, high-voltage MOSFETs are also utilized for generating and distributing sustainable energy from solar and wind energy panels. Additionally, various technological advancements, such as the integration of connected devices with the internet-of-things (IoT) and cloud computing solutions, are acting as other growth-inducing factors. This has increased the requirement for MOSFETs with minimal conduction loss, suppressed watt loss under light loads and improved reverse recovery. Other factors, including the increasing utilization of renewable energy resource-based power supplies, along with extensive research and development (R&D) activities, are

anticipated to drive the market further.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global high voltage MOSFET market report, along with forecasts at the global, regional and country levels from 2023-2028. Our report has categorized the market based on product type and application.

#### Breakup by Product Type:

Junction Tube

Insulated Gate

Others

#### Breakup by Application:

Consumer Electronics

Automotive Electronics

Power Systems

Others

#### Breakup by Region:

North America

United States

Canada

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The report has also analysed the competitive landscape of the market with some of the key players being Alpha and Omega Semiconductor Limited, Diodes Incorporated, Infineon Technologies AG, NXP Semiconductors N.V., ON Semiconductor Corporation, Renesas Electronics Corporation, Rohm Co. Ltd., STMicroelectronics N.V., Toshiba Corporation and Vishay Intertechnology Inc.

Key Questions Answered in This Report:

How has the global high voltage MOSFET market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global high voltage MOSFET market?

What are the key regional markets?

What is the breakup of the market based on the product type?

What is the breakup of the market based on the application?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global high voltage MOSFET market and who are the key players?

What is the degree of competition in the industry?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL HIGH VOLTAGE MOSFET MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

### **6 MARKET BREAKUP BY PRODUCT TYPE**

- 6.1 Junction Tube
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Insulated Gate
  - 6.2.1 Market Trends

- 6.2.2 Market Forecast
- 6.3 Others
  - 6.3.1 Market Trends
  - 6.3.2 Market Forecast

## **7 MARKET BREAKUP BY APPLICATION**

- 7.1 Consumer Electronics
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Automotive Electronics
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast
- 7.3 Power Systems
  - 7.3.1 Market Trends
  - 7.3.2 Market Forecast
- 7.4 Others
  - 7.4.1 Market Trends
  - 7.4.2 Market Forecast

## **8 MARKET BREAKUP BY REGION**

- 8.1 North America
  - 8.1.1 United States
    - 8.1.1.1 Market Trends
    - 8.1.1.2 Market Forecast
  - 8.1.2 Canada
    - 8.1.2.1 Market Trends
    - 8.1.2.2 Market Forecast
- 8.2 Asia Pacific
  - 8.2.1 China
    - 8.2.1.1 Market Trends
    - 8.2.1.2 Market Forecast
  - 8.2.2 Japan
    - 8.2.2.1 Market Trends
    - 8.2.2.2 Market Forecast
  - 8.2.3 India
    - 8.2.3.1 Market Trends
    - 8.2.3.2 Market Forecast

- 8.2.4 South Korea
  - 8.2.4.1 Market Trends
  - 8.2.4.2 Market Forecast
- 8.2.5 Australia
  - 8.2.5.1 Market Trends
  - 8.2.5.2 Market Forecast
- 8.2.6 Indonesia
  - 8.2.6.1 Market Trends
  - 8.2.6.2 Market Forecast
- 8.2.7 Others
  - 8.2.7.1 Market Trends
  - 8.2.7.2 Market Forecast
- 8.3 Europe
  - 8.3.1 Germany
    - 8.3.1.1 Market Trends
    - 8.3.1.2 Market Forecast
  - 8.3.2 France
    - 8.3.2.1 Market Trends
    - 8.3.2.2 Market Forecast
  - 8.3.3 United Kingdom
    - 8.3.3.1 Market Trends
    - 8.3.3.2 Market Forecast
  - 8.3.4 Italy
    - 8.3.4.1 Market Trends
    - 8.3.4.2 Market Forecast
  - 8.3.5 Spain
    - 8.3.5.1 Market Trends
    - 8.3.5.2 Market Forecast
  - 8.3.6 Russia
    - 8.3.6.1 Market Trends
    - 8.3.6.2 Market Forecast
  - 8.3.7 Others
    - 8.3.7.1 Market Trends
    - 8.3.7.2 Market Forecast
- 8.4 Latin America
  - 8.4.1 Brazil
    - 8.4.1.1 Market Trends
    - 8.4.1.2 Market Forecast
  - 8.4.2 Mexico

8.4.2.1 Market Trends

8.4.2.2 Market Forecast

8.4.3 Others

8.4.3.1 Market Trends

8.4.3.2 Market Forecast

8.5 Middle East and Africa

8.5.1 Market Trends

8.5.2 Market Breakup by Country

8.5.3 Market Forecast

## **9 SWOT ANALYSIS**

9.1 Overview

9.2 Strengths

9.3 Weaknesses

9.4 Opportunities

9.5 Threats

## **10 VALUE CHAIN ANALYSIS**

## **11 PORTERS FIVE FORCES ANALYSIS**

11.1 Overview

11.2 Bargaining Power of Buyers

11.3 Bargaining Power of Suppliers

11.4 Degree of Competition

11.5 Threat of New Entrants

11.6 Threat of Substitutes

## **12 PRICE ANALYSIS**

## **13 COMPETITIVE LANDSCAPE**

13.1 Market Structure

13.2 Key Players

13.3 Profiles of Key Players

13.3.1 Alpha and Omega Semiconductor Limited

- 13.3.1.1 Company Overview
- 13.3.1.2 Product Portfolio
- 13.3.1.3 Financials
- 13.3.2 Diodes Incorporated
  - 13.3.2.1 Company Overview
  - 13.3.2.2 Product Portfolio
  - 13.3.2.3 Financials
- 13.3.3 Infineon Technologies AG
  - 13.3.3.1 Company Overview
  - 13.3.3.2 Product Portfolio
  - 13.3.3.3 Financials
  - 13.3.3.4 SWOT Analysis
- 13.3.4 NXP Semiconductors N.V.
  - 13.3.4.1 Company Overview
  - 13.3.4.2 Product Portfolio
  - 13.3.4.3 Financials
  - 13.3.4.4 SWOT Analysis
- 13.3.5 ON Semiconductor Corporation
  - 13.3.5.1 Company Overview
  - 13.3.5.2 Product Portfolio
  - 13.3.5.3 Financials
  - 13.3.5.4 SWOT Analysis
- 13.3.6 Renesas Electronics Corporation
  - 13.3.6.1 Company Overview
  - 13.3.6.2 Product Portfolio
  - 13.3.6.3 Financials
  - 13.3.6.4 SWOT Analysis
- 13.3.7 Rohm Co. Ltd.
  - 13.3.7.1 Company Overview
  - 13.3.7.2 Product Portfolio
  - 13.3.7.3 Financials
  - 13.3.7.4 SWOT Analysis
- 13.3.8 STMicroelectronics N.V.
  - 13.3.8.1 Company Overview
  - 13.3.8.2 Product Portfolio
  - 13.3.8.3 Financials
- 13.3.9 Toshiba Corporation
  - 13.3.9.1 Company Overview
  - 13.3.9.2 Product Portfolio



13.3.9.3 Financials

13.3.9.4 SWOT Analysis

13.3.10 Vishay Intertechnology Inc.

13.3.10.1 Company Overview

13.3.10.2 Product Portfolio

13.3.10.3 Financials

13.3.10.4 SWOT Analysis

## List Of Tables

### LIST OF TABLES

Table 1: Global: High Voltage MOSFET Market: Key Industry Highlights, 2022 and 2028

Table 2: Global: High Voltage MOSFET Market Forecast: Breakup by Product Type (in Million US\$), 2023-2028

Table 3: Global: High Voltage MOSFET Market Forecast: Breakup by Application (in Million US\$), 2023-2028

Table 4: Global: High Voltage MOSFET Market Forecast: Breakup by Region (in Million US\$), 2023-2028

Table 5: Global: High Voltage MOSFET Market Structure

Table 6: Global: High Voltage MOSFET Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: High Voltage MOSFET Market: Major Drivers and Challenges

Figure 2: Global: High Voltage MOSFET Market: Sales Value (in Billion US\$), 2017-2022

Figure 3: Global: High Voltage MOSFET Market: Breakup by Product Type (in %), 2022

Figure 4: Global: High Voltage MOSFET Market: Breakup by Application (in %), 2022

Figure 5: Global: High Voltage MOSFET Market: Breakup by Region (in %), 2022

Figure 6: Global: High Voltage MOSFET Market Forecast: Sales Value (in Billion US\$), 2023-2028

Figure 7: Global: High Voltage MOSFET (Junction Tube) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 8: Global: High Voltage MOSFET (Junction Tube) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 9: Global: High Voltage MOSFET (Insulated Gate) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 10: Global: High Voltage MOSFET (Insulated Gate) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 11: Global: High Voltage MOSFET (Other Product Types) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 12: Global: High Voltage MOSFET (Other Product Types) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 13: Global: High Voltage MOSFET (Consumer Electronics) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 14: Global: High Voltage MOSFET (Consumer Electronics) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 15: Global: High Voltage MOSFET (Automotive Electronics) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 16: Global: High Voltage MOSFET (Automotive Electronics) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 17: Global: High Voltage MOSFET (Power Systems) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 18: Global: High Voltage MOSFET (Power Systems) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 19: Global: High Voltage MOSFET (Other Applications) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 20: Global: High Voltage MOSFET (Other Applications) Market Forecast: Sales

Value (in Million US\$), 2023-2028

Figure 21: North America: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 22: North America: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 23: United States: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 24: United States: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 25: Canada: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 26: Canada: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 27: Asia Pacific: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 28: Asia Pacific: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 29: China: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 30: China: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 31: Japan: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 32: Japan: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 33: India: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 34: India: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 35: South Korea: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 36: South Korea: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 37: Australia: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 38: Australia: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 39: Indonesia: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 40: Indonesia: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 41: Others: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 42: Others: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 43: Europe: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 44: Europe: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 45: Germany: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 46: Germany: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 47: France: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 48: France: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 49: United Kingdom: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 50: United Kingdom: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 51: Italy: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 52: Italy: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 53: Spain: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 54: Spain: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 55: Russia: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 56: Russia: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 57: Others: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 58: Others: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 59: Latin America: High Voltage MOSFET Market: Sales Value (in Million US\$),

2017 & 2022

Figure 60: Latin America: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 61: Brazil: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 62: Brazil: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 63: Mexico: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 64: Mexico: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 65: Others: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 66: Others: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 67: Middle East and Africa: High Voltage MOSFET Market: Sales Value (in Million US\$), 2017 & 2022

Figure 68: Middle East and Africa: High Voltage MOSFET Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 69: Global: High Voltage MOSFET Industry: SWOT Analysis

Figure 70: Global: High Voltage MOSFET Industry: Value Chain Analysis

Figure 71: Global: High Voltage MOSFET Industry: Porter's Five Forces Analysis

## I would like to order

Product name: High Voltage MOSFET Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

Product link: <https://marketpublishers.com/r/HCAD6A93D3D6EN.html>

Price: US\$ 2,499.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/HCAD6A93D3D6EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

