

# Global Discrete Power Devices Market

<https://marketpublishers.com/r/G8ACB96395C9EN.html>

Date: March 2025

Pages: 107

Price: US\$ 3,475.00 (Single User License)

ID: G8ACB96395C9EN

## Abstracts

Global Discrete Power Devices Market By Type (MOSFET, IGBT, Bipolar Junction Transistor, Rectifier, Other), By End User (Automotive, Consumer Electronics, Communication, Industrial, Others) And By Geography – Market Analysis, Opportunities, Trends And Forecast From 2023 t-2035

The Global Discrete Power Devices Market was valued at \$32.21 Billion in 2024 and is anticipated t-grow at a CAGR of 9.23% from 2025 t-2035. This growth is attributed t-several macr-and microeconomic factors such as

Rising Demand for Energy Efficiency and Power Management Solutions

The global discrete power devices market is experiencing significant growth driven by the rising demand for energy efficiency and power management solutions. As industries and consumers become increasingly conscious of energy consumption and environmental impact, there's a growing need for devices that can optimize power usage and minimize losses. Discrete power devices, such as MOSFETs, IGBTs, and diodes, play a crucial role in controlling and managing power in various applications, from consumer electronics and automotive systems t-industrial equipment and renewable energy installations. The increasing adoption of energy-efficient technologies, like electric vehicles, smart appliances, and industrial automation, necessitates the use of high-performance discrete power devices. These devices enable precise control over power flow, reducing energy waste and improving overall system efficiency. Furthermore, the proliferation of portable electronic devices and the growth of data centers are driving the need for efficient power management solutions t-extend battery life and reduce energy consumption. Consequently, the escalating focus on energy efficiency and power management across diverse sectors is a key catalyst for the expansion of the discrete power devices market.

Further several factors restraining the market growth include

#### High Cost of Advanced Materials and Technologies

A significant restraining factor hindering the growth of the global discrete power devices market is the high cost associated with advanced materials and technologies. The development and production of high-performance discrete power devices, especially those utilizing wide-bandgap materials like silicon carbide (SiC) and gallium nitride (GaN), require specialized materials and sophisticated manufacturing processes. These advanced materials, while offering superior performance characteristics like higher efficiency and thermal stability, are often expensive to source and process. Similarly, the technologies involved in fabricating these devices, such as advanced packaging and intricate chip designs, contribute to increased production costs. This high cost can limit the adoption of advanced discrete power devices, particularly in price-sensitive applications or industries where cost optimization is paramount. Furthermore, the need for ongoing research and development to improve material properties and manufacturing techniques adds to the overall expense, making these devices less accessible to certain market segments. Consequently, the high cost of advanced materials and technologies acts as a barrier to the widespread adoption of next-generation discrete power devices, slowing down market growth in certain areas.

Emerging Demand for Advanced Energy Storage and Management Systems and collaborations and alliances in the Discrete Power Devices market are expected to generate higher avenues during the forecast period.

In the wake of the COVID-19 pandemic, supply chain disruptions have led to supply shortages or lower demand in the Discrete Power Devices market. The pandemic has caused a decline in new orders and a corresponding decrease in revenue.

This section will analyze how COVID-19 has impacted supply chains, leading to shortages and lower demand for Discrete Power Devices.

In terms of COVID-19 impact, the Discrete Power Devices market report also includes the following data points:

#### Impact on Discrete Power Devices market size

Operating Weights Trend, Preferences, and Budget Impact

Regulatory Framework/Outdoor Policies

Key Players' Strategy to Tackle Negative Impact/Post-COVID Strategies

Opportunity in the Discrete Power Devices market

Key Insight in the report:

The global Discrete Power Devices market report covers an executive summary, market dynamics, COVID impact & post-COVID scenario, market size and forecast, competitive intelligence, market positioning, and Applications.

Our report covers extensive competitive intelligence which includes the following data points:

Business Overview

Business Segment Data

Financial Data

Type Segment Analysis and Specification

Recent Development and Company Strategy Analysis

SWOT Analysis

Discrete Power Devices Market Segmentation:

Type

MOSFET

IGBT

Bipolar Junction Transistor

Rectifier

Other

End User

Automotive

Consumer Electronics

Communication

Industrial

Others

Region/ Countries Covered:

North America

US

Canada

Mexico

Europe

U.K.

Germany

France

Italy

Spain

BeNeLux

Russia

Rest of Europe

Asia Pacific

China

Japan

Australia

India

South Korea

Taiwan

Rest of Asia Pacific

South America

Brazil

Argentina

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Egypt

South Africa

Rest of Middle East & Africa

#### Key Players Analyzed in the Report:

Infineon Technologies AG

Semiconductor Components Industries, LLC (onsemi)

Mitsubishi Electric Corporation

Toshiba Corporation

STMicroelectronics

Vishay Intertechnology, Inc

Fuji Electric Co., Ltd

Renesas Electronics Corporation

ROHM Co., Ltd.

Nexperia

## Contents

### **CHAPTER 1. EXECUTIVE SUMMARY**

### **CHAPTER 2. SCOPE OF THE STUDY**

### **CHAPTER 3. EVOLVE BI METHODOLOGY**

### **CHAPTER 4. MARKET INSIGHTS AND TRENDS**

#### 4.1. Value Chain Analysis

##### 4.1.1. R&D

##### 4.1.2. Manufacturing Process

##### 4.1.3. Distribution Channel

##### 4.1.4. End User

#### 4.2. Porter's Five Forces Analysis

##### 4.2.1. Bargaining Power of Buyers

##### 4.2.2. Bargaining Power of Suppliers

##### 4.2.3. Threat of New Entrant

##### 4.2.4. Threat of Substitute

##### 4.2.5. Industry Rivalry

### **CHAPTER 5. MARKET DYNAMICS**

#### 5.1. Introduction

#### 5.2. Drivers

##### 5.2.1. Rising Demand for Energy Efficiency and Power Management Solutions

##### 5.2.2. Growth in Electric Vehicles (EVs) and Renewable Energy Systems

#### 5.3. Restraint

##### 5.3.1. High Cost of Advanced Materials and Technologies

##### 5.3.2. Intense Competition from Integrated Power Modules

#### 5.4. Opportunity

##### 5.4.1. Emerging Demand for Advanced Energy Storage and Management Systems

#### 5.5. Macro Factor Analysis for the Discrete Power Device Market

##### 5.5.1. Economic Factors:

##### 5.5.2. Technological Factors:

##### 5.5.3. Regulatory Factors:

##### 5.5.4. Social Factors:

##### 5.5.5. Environmental Factors:

## **CHAPTER 6. GLOBAL DISCRETE POWER DEVICES MARKET, BY TYPE**

### **6.1. Introduction**

#### **6.1.1. MOSFET**

#### **6.1.2. IGBT**

#### **6.1.3. Bipolar Junction Transistor**

#### **6.1.4. Rectifier**

#### **6.1.5. Other**

## **CHAPTER 7. GLOBAL DISCRETE POWER DEVICES MARKET, BY END USER**

### **7.1. Introduction**

#### **7.1.1. Automotive**

#### **7.1.2. Consumer Electronics**

#### **7.1.3. Communication**

#### **7.1.4. Industrial**

#### **7.1.5. Other**

## **CHAPTER 8. GLOBAL DISCRETE POWER DEVICES MARKET, BY REGION**

### **8.1. Introduction**

### **8.2. North America**

#### **8.2.1. North America: Market Size and Forecast, By Country, 2023 - 2035 (\$ Billion)**

#### **8.2.2. North America: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)**

#### **8.2.3. North America: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)**

#### **8.2.4. US**

##### **8.2.4.1. US: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)**

##### **8.2.4.2. US: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)**

#### **8.2.5. Canada**

##### **8.2.5.1. Canada: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)**

##### **8.2.5.2. Canada: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)**

#### **8.2.6. Mexico**

##### **8.2.6.1. Mexico: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)**

##### **8.2.6.2. Mexico: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)**

### **8.3. Europe**

#### **8.3.1. Europe: Market Size and Forecast, By Country, 2023 - 2035 (\$ Billion)**

#### **8.3.2. Europe: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)**

#### **8.3.3. Europe: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)**



#### 8.3.4. U.K.

8.3.4.1. U.K.: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.3.4.2. U.K.: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.3.5. Germany

8.3.5.1. Germany: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.3.5.2. Germany: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.3.6. France

8.3.6.1. France: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.3.6.2. France: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.3.7. Italy

8.3.7.1. Italy: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.3.7.2. Italy: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.3.8. Spain

8.3.8.1. Spain: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.3.8.2. Spain: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.3.9. BeNeLux

8.3.9.1. BeNeLux: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.3.9.2. BeNeLux: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.3.10. Russia

8.3.10.1. Russia: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.3.10.2. Russia: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.3.11. Rest of Europe

8.3.11.1. Rest of Europe: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.3.11.2. Rest of Europe: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.4. Asia Pacific

8.4.1. Asia Pacific: Market Size and Forecast, By Country, 2023 - 2035 (\$ Million)

8.4.2. Asia Pacific: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.4.3. Asia Pacific: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.4.4. China

8.4.4.1. China: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.4.4.2. China: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.4.5. Japan

8.4.5.1. Japan: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.4.5.2. Japan: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.4.6. Australia

8.4.6.1. Australia: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.4.6.2. Australia: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.4.7. India

8.4.7.1. India: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.4.7.2. India: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.4.8. South Korea

8.4.8.1. South Korea: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.4.8.2. South Korea: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.4.9. Taiwan

8.4.9.1. Taiwan: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.4.9.2. Taiwan: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.4.10. Rest of Asia Pacific

8.4.10.1. Rest of Asia Pacific: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.4.10.2. Rest of Asia Pacific: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.5. South America

8.5.1. South America: Market Size and Forecast, By Country, 2023 - 2035 (\$ Million)

8.5.2. South America: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.5.3. South America: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

##### 8.5.4. Brazil

8.5.4.1. Brazil: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.5.4.2. Brazil: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

##### 8.5.5. Argentina

8.5.5.1. Argentina: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.5.5.2. Argentina: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

##### 8.5.6. Rest of South America

8.5.6.1. Rest of South America: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.5.6.2. Rest of South America: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

#### 8.6. Middle East & Africa

8.6.1. Middle East & Africa: Market Size and Forecast, By Country, 2023 - 2035 (\$ Billion)

8.6.2. Middle East & Africa: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.6.3. Middle East & Africa: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

##### 8.6.4. Saudi Arabia

8.6.4.1. Saudi Arabia: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.6.4.2. Saudi Arabia: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

##### 8.6.5. UAE

8.6.5.1. UAE: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.6.5.2. UAE: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

8.6.6. Egypt

8.6.6.1. Egypt: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.6.6.2. Egypt: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

8.6.7. South Africa

8.6.7.1. South Africa: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.6.7.2. South Africa: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

8.6.8. Rest of Middle East & Africa

8.6.8.1. Rest of Middle East & Africa: Market Size and Forecast, By Type, 2023 - 2035 (\$ Billion)

8.6.8.2. Rest of Middle East & Africa: Market Size and Forecast, By End User, 2023 - 2035 (\$ Billion)

## **CHAPTER 9. COMPETITIVE LANDSCAPE**

9.1. Competitor Benchmarking 2025

9.2. Market Share Analysis, 2024

9.3. Key Developments Analysis By Top 5 Companies (2023-2025)

9.4. Market Share Acquisition Strategies: Analysis of Key Approaches Employed by Top Players (2023-2025)

## **CHAPTER 10. COMPANY PROFILES**

10.1. Infineon Technologies AG

10.1.1. Business Overview

10.1.2. Financial Analysis

10.1.2.1. Business Segment Revenue, 2023

10.1.2.2. Geographic Revenue Mix, 2023

10.1.3. Product Portfolio

10.1.4. Recent Development and Strategies Adopted

10.1.5. SWOT Analysis

10.2. Semiconductor Components Industries, LLC (ONSEMI)

10.2.1. Business Overview

10.2.2. Financial Analysis

10.2.2.1. Business Segment Revenue, 2023

10.2.2.2. Geographic Revenue Mix, 2023

10.2.3. Product Portfolio

10.2.4. Recent Development and Strategies Adopted

10.3. Mitsubishi Electric Corporation

- 10.3.1. Business Overview
- 10.3.2. Financial Analysis
  - 10.3.2.1. Business Segment Revenue, FY24
  - 10.3.2.2. Geographic Revenue Mix, FY24
- 10.3.3. Product Portfolio
- 10.3.4. Recent Development and Strategies Adopted
- 10.3.5. SWOT Analysis
- 10.4. Toshiba Corporation
  - 10.4.1. Business Overview
  - 10.4.2. Financial Analysis
    - 10.4.2.1. Business Segment Revenue, 2023
    - 10.4.2.2. Geographic Revenue Mix, 2023
  - 10.4.3. Product Portfolio
  - 10.4.4. Recent Development and Strategies Adopted
  - 10.4.5. SWOT Analysis
- 10.5. STMicroelectronics
  - 10.5.1. Business Overview
  - 10.5.2. Financial Analysis
    - 10.5.2.1. Business Segment Revenue, 2024
    - 10.5.2.2. Geographic Revenue Mix, 2024
  - 10.5.3. Product Portfolio
  - 10.5.4. Recent Development and Strategies Adopted
  - 10.5.5. SWOT Analysis
- 10.6. Vishay Intertechnology Inc.
  - 10.6.1. Business Overview
  - 10.6.2. Financial Analysis
    - 10.6.2.1. Business Segment Revenue, 2024
    - 10.6.2.2. Geographic Revenue Mix, 2024
  - 10.6.3. Product Portfolio
  - 10.6.4. Recent Development and Strategies Adopted
- 10.7. Fuji Electric Co. Ltd.
  - 10.7.1. Business Overview
  - 10.7.2. Financial Analysis
    - 10.7.2.1. Business Segment Revenue, FY 2024
    - 10.7.2.2. Geographic Revenue Mix, FY 2024
  - 10.7.3. Product Portfolio
  - 10.7.4. SWOT Analysis
- 10.8. Renesas Electronics Corporation
  - 10.8.1. Business Overview

#### 10.8.2. Financial Analysis

##### 10.8.2.1. Business Segment Revenue, 2023

##### 10.8.2.2. Geographic Revenue Mix, 2023

#### 10.8.3. Product Portfolio

### 10.9. ROHM CO. LTD.

#### 10.9.1. Business Overview

#### 10.9.2. Financial Analysis

##### 10.9.2.1. Business Segment Revenue, 2023

##### 10.9.2.2. Geographic Revenue Mix, 2023

#### 10.9.3. Product Portfolio

#### 10.9.4. Recent Development and Strategies Adopted

#### 10.9.5. SWOT Analysis

### 10.10. Nexperia

#### 10.10.1. Business Overview

#### 10.10.2. Product Portfolio

#### 10.10.3. Recent Development and Strategies Adopted

## I would like to order

Product name: Global Discrete Power Devices Market

Product link: <https://marketpublishers.com/r/G8ACB96395C9EN.html>

Price: US\$ 3,475.00 (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/G8ACB96395C9EN.html>