

Global Power MOSFET Market By Type, (Depletion Mode Power MOSFET, Enhancement Mode Power MOSFET), By Power rate, (High Power, Medium Power, Low Power), Industry Analysis, Trends, Estimation & Forecast, 2016 - 2024

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Abstracts

The Global Power MOSFET Market was valued at \$3.7 billion in 2016, and is projected to reach \$7 billion by 2024, having a CAGR of 7.6% during the forecast period of 2017 to 2024.

MOSFET stands for metal oxides semiconductor field effect transistor. It is a semiconductor device specifically designed to handle high power levels. As compared to other power semiconductor devices, MOSFET is empowered with high switching speed and appreciable efficiency at low voltages. The power MOSFETs are widely used in the n-channel enhancement mode, p-channel enhancement mode, and in the nature of n-channel depletion mode. The power MOSFETs are highly used in various industries such as energy and power, consumer electronics, automotive and various others.

MARKET DETERMINANTS

Increasing demand for compact automation solutions, improved efficiency, and enhanced robustness have hiked the rate of adoption of power MOSFET in numerous fields such as consumer electronics, energy & power, and other applications. As a result, the global power MOSFET market is subjected to exhibit an impressive growth in the upcoming future. This is because of the compact size and enhanced durability of the MOSFET devices. On the other hand, high cost of implementation and current leakage are the major factors which can hamper the growth of power MOSFET market.

However, the Integration of power MOSFET technology with human machine interface (HMI) will act as future growth opportunity for the market.

SEGMENT ANALYSIS

The global power MOSFET market is segmented on the basis of type, power rate, application and geography. By type, the market is segmented as depletion mode power MOSFET and enhancement mode power MOSFET. On the basis of power rate, the market is segmented into high power, medium power and low power. By application, the market is segmented into energy & power, consumer electronics, automotive, inverter & UPS, industrial System and others. Geographically, the market is segmented into North America, Europe, Asia-Pacific and Rest of World. Enhancement mode power MOSFET market generated the highest revenue in 2016, holding more than 50% of the global market. The enhancement mode MOSFET transistors are mostly used as switches in electronic circuits because of their low ON resistance and high OFF resistance and also because of their high gate resistance. These transistors are used to make logic gates and in power switching circuits, such as CMOS gates, which have both NMOS and PMOS Transistors.

Some major market players of the power MOSFET market are IXYS Corporation, Mitsubishi Electric Corp., Infineon Technologies AG, Renesas Electronics Corporation, Toshiba Corporation, Texas Instruments, Inc., NXP Semiconductors N.V., Digi-Key Electronics, STMicroelectronics, N.V. and Power Integrations Inc.

GLOBAL POWER MOSFET market segmentation

By Type

Depletion Mode Power MOSFET

Enhancement Mode Power MOSFET

By Power rate

High Power

Medium Power

Low Power

By Application

Energy & Power

Consumer Electronics

Automotive

Inverter & UPS

Industrial System

Others

By Geography

North America

U.S.

Mexico

Canada

Europe

Germany

France

Rest of Europe

Asia-Pacific

India

Japan

China

Australia

Rest of APAC

Rest of World

Latin America

Middle East

Africa

KEY MARKET PLAYERS

IXYS Corporation,

Mitsubishi Electric Corp.

Infenion Technologies AG

Renesas Electronics Corporation

Toshiba Corporation

Texas Instruments, Inc.

NXP Semiconductors N.V.

Digi-Key Electronics

STMicroelectronics, N.V.

Power Integrations Inc.

Contents

CHAPTER 1. INTRODUCTION

1.1. RESEARCH METHODOLOGY

- 1.1.1. ERC desk research
- 1.1.2. ERC data synthesis
- 1.1.3. Data validation and market feedback
- 1.1.4. ERC data sources

1.2. RESEARCH SCOPE

CHAPTER 2. MARKET LANDSCAPE

2.1. RESEARCH SUMMARY

2.2. VALUE CHAIN ANALYSIS

2.3. FIVE FORCES ANALYSIS

2.4. MARKET SHARE ANALYSIS

2.5. DEMAND FORECAST

2.6. BUSINESS INTELLIGENCE & STRATEGIC ANALYSIS

2.7. MARKET DETERMINANTS

2.7.1. Drivers

- 2.7.1.1. Increasing demand for compact automation
- 2.7.1.2. Improved efficiency
- 2.7.1.3. Enhanced robustness

2.7.2. Restraints

- 2.7.2.1. High implementation cost
- 2.7.2.2. Current leakage

2.7.3. Opportunities

- 2.7.3.1. Integration of MOSFET technology with human machine interface

CHAPTER 3. GLOBAL POWER MOSFET MARKET BY TYPE

3.1. SEGMENT OUTLINE

3.2. GLOBAL POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024

3.3. DEPLETION MODE POWER MOSFET

- 3.3.1. Trend analysis
- 3.3.2. Market growth indicators
- 3.3.3. Global depletion mode power MOSFET market revenue by region, 2016-2024

3.4. ENHANCEMENT MODE POWER MOSFET

- 3.4.1. Trend analysis
- 3.4.2. Market growth indicators
- 3.4.3. Global enhancement mode power MOSFET market revenue by region, 2016-2024

CHAPTER 4. GLOBAL POWER MOSFET MARKET BY POWER RATE

- 4.1. SEGMENT OUTLINE
- 4.2. GLOBAL POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024
- 4.3. HIGH POWER
 - 4.3.1. Trend analysis
 - 4.3.2. Market growth indicators
 - 4.3.3. Global high power market revenue by region, 2016-2024
- 4.4. MEDIUM POWER
 - 4.4.1. Trend analysis
 - 4.4.2. Market growth indicators
 - 4.4.3. Global medium power market revenue by region, 2016-2024
- 4.5. LOW POWER
 - 4.5.1. Trend analysis
 - 4.5.2. Market growth indicators
 - 4.5.3. Global low power market revenue by region, 2016-2024

CHAPTER 5. GLOBAL POWER MOSFET MARKET BY APPLICATION

- 5.1. SEGMENT OUTLINE
- 5.2. GLOBAL POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024
- 5.3. ENERGY & POWER
 - 5.3.1. Trend analysis
 - 5.3.2. Market growth indicators
 - 5.3.3. Global energy & power market revenue by region, 2016-2024
- 5.4. CONSUMER ELECTRONICS
 - 5.4.1. Trend analysis
 - 5.4.2. Market growth indicators
 - 5.4.3. Global consumer electronics market revenue by region, 2016-2024
- 5.5. AUTOMOTIVE
 - 5.5.1. Trend analysis
 - 5.5.2. Market growth indicators
 - 5.5.3. Global automotive market revenue by region, 2016-2024
- 5.6. INVERTER & UPS

- 5.6.1. Trend analysis
- 5.6.2. Market growth indicators
- 5.6.3. Global inverter & UPS market revenue by region, 2016-2024
- 5.7. INDUSTRIAL SYSTEM
 - 5.7.1. Trend analysis
 - 5.7.2. Market growth indicators
 - 5.7.3. Global industrial system market revenue by region, 2016-2024
- 5.8. OTHERS
 - 5.8.1. Trend analysis
 - 5.8.2. Market growth indicators
 - 5.8.3. Global others market revenue by region, 2016-2024

CHAPTER 6. GLOBAL POWER MOSFET MARKET BY GEOGRAPH

- 6.1. SEGMENT OUTLINE
- 6.2. GLOBAL POWER MOSFET MARKET REVENUE BY GEOGRAPHY, 2016-2024
- 6.3. NORTH AMERICA
 - 6.3.1. Trend analysis
 - 6.3.2. Market growth indicators
 - 6.3.3. North America power MOSFET market revenue by type, 2016-2024
 - 6.3.4. North America power MOSFET market revenue by power rate, 2016-2024
 - 6.3.5. North America power MOSFET market revenue by application, 2016-2024
 - 6.3.6. North America power MOSFET market revenue by country, 2016-2024
 - 6.3.6.1. U. S.
 - 6.3.6.2. Mexico
 - 6.3.6.3. Canada
- 6.4. EUROPE
 - 6.4.1. Trend analysis
 - 6.4.2. Market growth indicators
 - 6.4.3. Europe power MOSFET market revenue by type, 2016-2024
 - 6.4.4. Europe power MOSFET market revenue by power rate, 2016-2024
 - 6.4.5. Europe power MOSFET market revenue by application, 2016-2024
 - 6.4.6. Europe power MOSFET market revenue by country, 2016-2024
 - 6.4.6.1. U. K.
 - 6.4.6.2. Germany
 - 6.4.6.3. France
 - 6.4.6.4. Rest of Europe
- 6.5. ASIA PACIFIC
 - 6.5.1. Trend analysis

6.5.2. Market growth indicators

6.5.3. Asia Pacific power MOSFET market revenue by type, 2016-2024

6.5.4. Asia Pacific power MOSFET market revenue by power rate, 2016-2024

6.5.5. Asia Pacific power MOSFET market revenue by application, 2016-2024

6.5.6. Asia Pacific power MOSFET market revenue by country, 2016-2024

6.5.6.1. India

6.5.6.2. Japan

6.5.6.3. China

6.5.6.4. Australia

6.5.6.5. Rest of APAC

6.6. ROW

6.6.1. Trend analysis

6.6.2. Market growth indicators

6.6.3. ROW power MOSFET market revenue by type, 2016-2024

6.6.4. ROW power MOSFET market revenue by power rate, 2016-2024

6.6.5. ROW power MOSFET market revenue by application, 2016-2024

6.6.6. ROW power MOSFET market revenue by country, 2016-2024

6.6.6.1. Latin America

6.6.6.2. Middle East

6.6.6.3. Africa

CHAPTER 7. KEY VENDOR PROFILES

7.1. IXYS CORPORATION

7.1.1. Company synopsis

7.1.2. Company snapshot

7.1.3. Business overview

7.1.4. Strategic analysis

7.2. MITSUBISHI ELECTRIC CORP

7.2.1. Company synopsis

7.2.2. Company snapshot

7.2.3. Business overview

7.2.4. Strategic analysis

7.3. INFINEON TECHNOLOGIES AG

7.3.1. Company synopsis

7.3.2. Company snapshot

7.3.3. Business overview

7.3.4. Strategic analysis

7.4. RENESAS ELECTRONICS CORPORATION

- 7.4.1. Company synopsis
- 7.4.2. Company snapshot
- 7.4.3. Business overview
- 7.4.4. Strategic analysis
- 7.5. TOSHIBA CORPORATION
 - 7.5.1. Company synopsis
 - 7.5.2. Company snapshot
 - 7.5.3. Business overview
 - 7.5.4. Strategic analysis
- 7.6. TEXAS INSTRUMENTS INC.
 - 7.6.1. Company synopsis
 - 7.6.2. Company snapshot
 - 7.6.3. Business overview
 - 7.6.4. Strategic analysis
- 7.7. NXP SEMICONDUCTORS N.V.
 - 7.7.1. Company synopsis
 - 7.7.2. Company snapshot
 - 7.7.3. Business overview
 - 7.7.4. Strategic analysis
- 7.8. DIGI-KEY ELECTRONICS
 - 7.8.1. Company synopsis
 - 7.8.2. Company snapshot
 - 7.8.3. Business overview
 - 7.8.4. Strategic analysis
- 7.9. STMICROELECTRONICS N.V.
 - 7.9.1. Company synopsis
 - 7.9.2. Company snapshot
 - 7.9.3. Business overview
 - 7.9.4. Strategic analysis
- 7.10. POWER INTEGRATIONS INC.
 - 7.10.1. Company synopsis
 - 7.10.2. Company snapshot
 - 7.10.3. Business overview
 - 7.10.4. Strategic analysis

List Of Tables

LIST OF TABLES

TABLE NO 1. GLOBAL POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)

TABLE NO 2. GLOBAL DEPLETION MODE POWER MOSFET MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 3. GLOBAL ENHANCEMENT MODE POWER MOSFET MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 4. GLOBAL POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)

TABLE NO 5. GLOBAL HIGH POWER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 6. GLOBAL MEDIUM POWER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 7. GLOBAL LOW POWER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 8. GLOBAL POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)

TABLE NO 9. GLOBAL ENERGY & POWER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 10. GLOBAL CONSUMER ELECTRONICS MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 11. GLOBAL AUTOMOTIVE MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 12. GLOBAL INVERTER & UPS MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 13. GLOBAL INDUSTRIAL SYSTEM MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 14. GLOBAL OTHERS MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 15. GLOBAL POWER MOSFET MARKET REVENUE BY GEOGRAPHY, 2016-2024 (\$MILLION)

TABLE NO 16. NORTH AMERICA POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)

TABLE NO 17. NORTH AMERICA POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)

TABLE NO 18. NORTH AMERICA POWER MOSFET MARKET REVENUE BY

APPLICATION, 2016-2024 (\$MILLION)

TABLE NO 19. NORTH AMERICA POWER MOSFET MARKET REVENUE BY COUNTRY, 2016-2024 (\$MILLION)

TABLE NO 20. EUROPE POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)

TABLE NO 21. EUROPE POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)

TABLE NO 22. EUROPE POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)

TABLE NO 23. EUROPE POWER MOSFET MARKET REVENUE BY COUNTRY, 2016-2024 (\$MILLION)

TABLE NO 24. ASIA PACIFIC POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)

TABLE NO 25. ASIA PACIFIC POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)

TABLE NO 26. ASIA PACIFIC POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)

TABLE NO 27. ASIA PACIFIC POWER MOSFET MARKET REVENUE BY COUNTRY, 2016-2024 (\$MILLION)

TABLE NO 28. ROW POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)

TABLE NO 29. ROW POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)

TABLE NO 30. ROW POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)

TABLE NO 31. ROW POWER MOSFET MARKET REVENUE BY COUNTRY, 2016-2024 (\$MILLION)

List Of Figures

LIST OF FIGURES

- FIGURE NO 1. VALUE CHAIN ANALYSIS
- FIGURE NO 2. FIVE FORCES ANALYSIS
- FIGURE NO 3. MARKET SHARE ANALYSIS
- FIGURE NO 4. INVESTMENT OPPORTUNITIES
- FIGURE NO 5. KEY STRATEGIC ATTEMPTS (%SHARE)
- FIGURE NO 6. GLOBAL POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)
- FIGURE NO 7. GLOBAL DEPLETION MODE POWER MOSFET MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 8. GLOBAL ENHANCEMENT MODE POWER MOSFET MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 9. GLOBAL POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)
- FIGURE NO 10. GLOBAL HIGH POWER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 11. GLOBAL MEDIUM POWER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 12. GLOBAL LOW POWER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 13. GLOBAL POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)
- FIGURE NO 14. GLOBAL ENERGY & POWER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 15. GLOBAL CONSUMER ELECTRONICS MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 16. GLOBAL AUTOMOTIVE MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 17. GLOBAL INVERTER & UPS MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 18. GLOBAL INDUSTRIAL SYSTEM MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 19. GLOBAL OTHERS MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)
- FIGURE NO 20. GLOBAL POWER MOSFET MARKET REVENUE BY GEOGRAPHY, 2016-2024 (\$MILLION)

FIGURE NO 21. NORTH AMERICA POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)

FIGURE NO 22. NORTH AMERICA POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)

FIGURE NO 23. NORTH AMERICA POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)

FIGURE NO 24. NORTH AMERICA POWER MOSFET MARKET REVENUE BY COUNTRY, 2016-2024 (\$MILLION)

FIGURE NO 25. U. S. POWER MOSFET MARKET REVENUE, 2016-2024 (\$MILLION)

FIGURE NO 26. MEXICO POWER MOSFET MARKET REVENUE, 2016-2024 (\$MILLION)

FIGURE NO 27. CANADA POWER MOSFET MARKET REVENUE, 2016-2024 (\$MILLION)

FIGURE NO 28. EUROPE POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)

FIGURE NO 29. EUROPE POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)

FIGURE NO 30. EUROPE POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)

FIGURE NO 31. EUROPE POWER MOSFET MARKET REVENUE BY COUNTRY, 2016-2024 (\$MILLION)

FIGURE NO 32. U. K. POWER MOSFET MARKET REVENUE, 2016-2024 (\$MILLION)

FIGURE NO 33. GERMANY POWER MOSFET MARKET REVENUE, 2016-2024 (\$MILLION)

FIGURE NO 34. FRANCE POWER MOSFET MARKET REVENUE, 2016-2024 (\$MILLION)

FIGURE NO 35. REST OF EUROPE POWER MOSFET MARKET REVENUE, 2016-2024 (\$MILLION)

FIGURE NO 36. ASIA PACIFIC POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024 (\$MILLION)

FIGURE NO 37. ASIA PACIFIC POWER MOSFET MARKET REVENUE BY POWER RATE, 2016-2024 (\$MILLION)

FIGURE NO 38. ASIA PACIFIC POWER MOSFET MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)

FIGURE NO 39. ASIA PACIFIC POWER MOSFET MARKET REVENUE BY COUNTRY, 2016-2024 (\$MILLION)

FIGURE NO 40. INDIA POWER MOSFET MARKET REVENUE, 2016-2024 (\$MILLION)

FIGURE NO 41. JAPAN POWER MOSFET MARKET REVENUE, 2016-2024

(\$MILLION)

FIGURE NO 42. CHINA POWER MOSFET MARKET REVENUE, 2016-2024

(\$MILLION)

FIGURE NO 43. AUSTRALIA POWER MOSFET MARKET REVENUE, 2016-2024

(\$MILLION)

FIGURE NO 44. REST OF APAC POWER MOSFET MARKET REVENUE, 2016-2024

(\$MILLION)

FIGURE NO 45. ROW POWER MOSFET MARKET REVENUE BY TYPE, 2016-2024

(\$MILLION)

FIGURE NO 46. ROW POWER MOSFET MARKET REVENUE BY POWER RATE,
2016-2024 (\$MILLION)

FIGURE NO 47. ROW POWER MOSFET MARKET REVENUE BY APPLICATION,
2016-2024 (\$MILLION)

FIGURE NO 48. ROW POWER MOSFET MARKET REVENUE BY COUNTRY,
2016-2024 (\$MILLION)

FIGURE NO 49. LATIN AMERICA POWER MOSFET MARKET REVENUE, 2016-2024
(\$MILLION)

FIGURE NO 50. MIDDLE EAST POWER MOSFET MARKET REVENUE, 2016-2024
(\$MILLION)

FIGURE NO 51. AFRICA POWER MOSFET MARKET REVENUE, 2016-2024
(\$MILLION)

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