Global Power Device Market Overview

Driven by the development of renewable energy, supportive government policies, and the growing demand for efficient electricity use, the global power device market is expected to maintain a strong growth trajectory in the coming years.

In 2022, the global power electronics market reached approximately USD 20.9 billion (including discrete devices and modules). According to YOLE's forecast, the compound annual growth rate (CAGR) from 2022 to 2028 is projected to be around 8.1%, with the market size expected to reach approximately USD 33.3 billion by 2028. Driven by the automotive sector, charging stations, and new energy vehicles (OBC, DC/DC), the discrete device market is projected to grow from USD 14.3 billion in 2022 to USD 18.5 billion by 2028, with a CAGR of approximately 4.4%. Meanwhile, the module market, influenced by the development of new energy vehicles and renewable energy, is expected to expand from USD 6.6 billion to USD 14.8 billion over the same period, also with a CAGR of around 4.4%.



Data Source: YOLE

According to YOLE's forecast, the market share of Si-MOSFET single devices is expected to decrease from 40% in 2022 to approximately 29% by 2028. The reduced market share is likely to be absorbed by SiC-MOSFET modules. Meanwhile, the market share of IGBT modules is expected to remain relatively stable over the same period.



Data Source: YOLE

By application, the new energy vehicle, automotive, and industrial sectors remain the three largest fields in terms of market share.



Data Source: YOLE