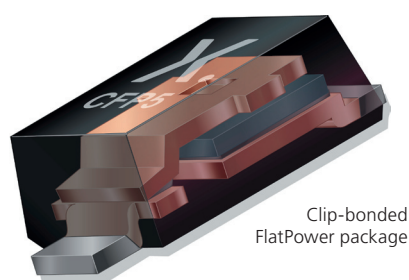
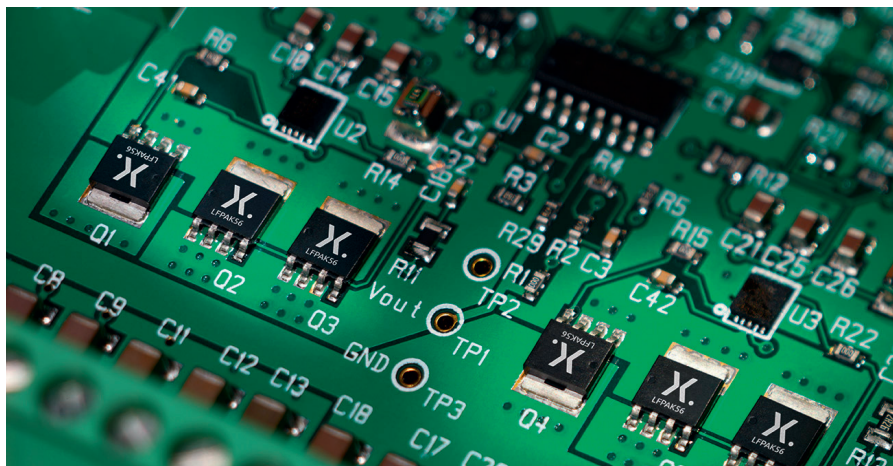


Nexperia is the expert in high-volume production of discrete and MOSFET components and analog & logic ICs that meet the stringent standards set by the automotive industry. Every application needs to be more power efficient, but there is also significant pressure to increase power density. With an absolute focus on efficiency, Nexperia consistently produces the essential semiconductors required by every electronic design in the world. Products that are benchmarks in efficiency – in process, size, power and performance – with industry-leading small packages that save valuable energy and space.



A powerful portfolio

This focus on efficiency has led Nexperia to develop a broad portfolio of products, technologies and packages addressing a wide range of power requirements and current handling capabilities. From low-voltage diodes and bipolar junction transistors right up to 650 V GaN FETs and recovery rectifiers. And as new technologies and enhanced generations of existing technologies come online, we continue to expand the power capabilities of our complete portfolio.



Clip-bonded LPAK56 package

GaN FETs and MOSFETs

Getting the right power density and $R_{DS(on)}$, while ensuring the best repetitive Safe Operating Area (SOA), plus delivering both device and thermal efficiency, requires a specific mix of capabilities and expertise. When it comes to low and medium power MOSFETs, Nexperia fully understands this challenge. By adding Gallium Nitride (GaN) technology to our portfolio, we extend our expertise in the innovation of high-performance and high-reliability FET solutions into the higher-voltage arena.

Bipolar power transistors and rectifiers

The increased focus on power efficiency also drives performance improvements in bipolar technologies. From high-voltage diodes to bipolar junction transistors and enhanced recovery rectifiers, Nexperia continues to push energy efficiency, bringing power up and losses down, while our package innovations satisfy

the demand for space-saving designs and cost-efficiency.

Copper clip packages drive efficiency

The drive for power density means that not only are silicon improvements needed, but new package construction techniques must be utilised to get the most out of these devices. Nexperia pioneered full copper clip die mounting technology almost two decades ago with the launch of the Power-SO8 footprint LPAK (Loss-Free PACKage). Since then we have gone on to expand the LPAK family (LPAK33 / LPAK56 / LPAK56D dual / LPAK88) and introduce the Clip-bonded FlatPower (CFP) package range. This draws on the many technical benefits (current capability, $R_{DS(on)}$, thermal characteristics, board level reliability etc.) of copper-clip packages to offer future-proof and high-performance alternatives for numerous traditional power package options.