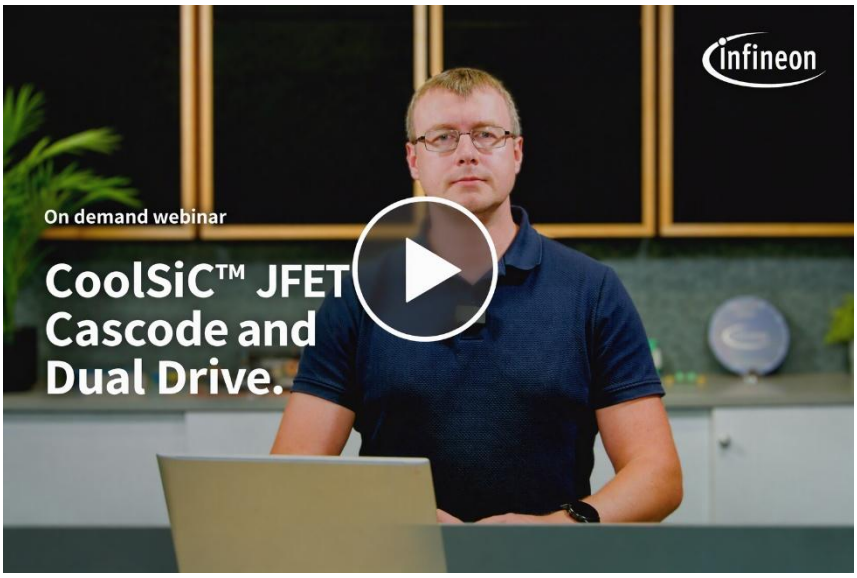
WEBINAR Q&A

The evolution of SiC power devices: Why cascode and dual drive JFETs matter

Watch on-demand webinar



About the Webinar

As power electronics continue to evolve, silicon carbide devices are driving new levels of efficiency, power density, and reliability across applications ranging from AI data centers and renewable energy to industrial automation and electric mobility. While SiC MOSFETs have become the mainstream choice, a new generation of normally-off SiC JFETs is emerging as a compelling alternative. This webinar explores the evolution of SiC power devices and explains why normally-off JFETs are gaining attention.

Audience questions:

- **Are there any second sources for CoolSiC™ JFETs?**
  CoolSiC™ is Infineon's product brand, so there is no second source for an identical CoolSiC™ device. However, at least one other supplier currently offers competing SiC JFET technology, and several additional companies have announced development activities. When evaluating alternatives, customers should compare electrical characteristics, package compatibility, gate-drive requirements, qualification status, and application-level performance.

- **Are there any plans for higher voltage devices 2KV**
  There are currently no announced plans for a 2 kV CoolSiC™ JFET device. Please contact your Infineon sales representative or field application engineer to discuss specific voltage requirements and suitable alternatives.

- **How do SiC JFETs perform at high temperatures and high switching frequencies?**
  SiC JFET cascodes combine high-temperature capability with low switching losses, making them well suited to efficient operation at high switching frequencies. Their lower switching losses can help reduce cooling requirements and enable more compact power-conversion designs. Actual limits and performance depend on the selected device, package, gate-drive concept, operating conditions, and thermal design; the relevant datasheet and application guidance should therefore be used for final design decisions.

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