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40-V GaN Power Transistor And Lower Voltage Parts Target Silicon Strongholds

From Efficient Power Conversion (EPC), the EPC2366 is a 40-V, $0.8\text{-m}\Omega$ device designed to displace legacy low-voltage silicon MOSFETs in demanding applications such as high-performance dc-dc converters and synchronous rectifiers. With industry-leading $R_{DS(ON)} \times Q_G$ figure of merit (10 m Ω ·nC), according to the vendor, zero reverse recovery, and excellent thermal performance, the EPC2366 delivers higher efficiency, faster switching, and greater power density in a compact 3.3-mm x 2.6- mm PQFN package (see the figure).

The EPC2366 enables higher frequency operation and reduced system size for high density 48-V converters in AI servers and datacom, high frequency synchronous rectifiers, and 24-V battery powered motor drives. Recently, the company has also announced plans to introduce lower voltage GaN devices with 25-V and 15-V ratings.

"With the EPC2366, and upcoming lower voltage parts, we are expanding the GaN beachhead across low-voltage applications that have long been dominated by silicon," said Alex Lidow, EPC CEO and co-founder. Engineering samples are available for qualified designs.

For more information, see the EPC2366 page or contact EPC to discuss your application.



Figure. The 40-V, 0.8-m Ω GaN FET offers an $R_{\rm ON}$ x $Q_{\rm G}$ figure of merit (10 m Ω nC), which is best-in-class according to the vendor. The company has also announced plans to introduce 25-V and 15-V GaN devices.