



## Transphorm Announces Two 4-Lead TO-247 Devices, Expanding Product Portfolio for High Power Server, Renewable, Industrial Power Conversion

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*New FETs Serve as an Original Design Option or Drop-In Replacement for SiC*

GOLETA, Calif.--(BUSINESS WIRE)--Jan. 17, 2024-- [Transphorm, Inc.](#) (Nasdaq: TGAN), the global leader in robust GaN power semiconductors, today announced availability of two new SuperGaN® devices in a 4-lead TO-247 package (TO-247-4L). The new TP65H035G4YS and TP65H050G4YS FETs offer a 35 mOhm and 50 mOhm on resistance respectively, complete with a kelvin-source terminal that gives customers versatile switching capabilities with even lower energy losses. The new products will run on Transphorm's well-established GaN-on-Silicon substrate manufacturing process that is cost-effective, reliable, and well-suited for high volume manufacturing on silicon production lines. The 50 mOhm TP65H050G4YS FET is currently available while the 35 mOhm TP65H035G4YS FET is sampling and slated for release in calendar Q1'2024.

Transphorm's 4-lead SuperGaN devices can serve as an original design-in option or as a drop-in replacement for 4-lead silicon and SiC solutions supporting power supplies at 1 kilowatt and up in a wide range of data center, renewables, and broad industrial applications. As noted, the 4-lead configuration offers flexibility to users for further improved switching performance. In a hard-switched synchronous boost converter, the 35 mOhm SuperGaN 4-lead FET reduced losses by 15 percent at 50 kilohertz (kHz) and by 27 percent at 100 kHz when compared to a SiC MOSFET device with a comparable on resistance.

Transphorm's SuperGaN FETs are known for delivering differentiating advantages such as:

- Industry-leading robustness with a +/- 20 V gate threshold and a 4 V noise immunity.
- Easier designability by reducing the amount of circuitry required around the device.
- Easier drivability as FETs can pair with well-known, off-the-shelf drivers common to silicon devices.

The TO-247-4L devices offer the same robustness, designability, and drivability with the following core specifications:

Part Number	Vds (V) min	Rds(on) (mΩ) typ	Vth (V) typ	Id (25°C) (A) max	Package Variation
TP65H035G4YS	650	35	3.6	46.5	Source
TP65H050G4YS	650	50	4	35	Source

"We continue to expand our product portfolio to bring to market GaN FETs that help customers leverage our SuperGaN platform performance advantages in whatever design requirement they may have," said Philip Zuk, Senior Vice President, Business Development and Marketing, Transphorm. "The four-lead TO-247 package provides flexibility for designers and customers seeking even greater power system loss reductions with little to no design modifications on silicon or silicon carbide systems. It's an important addition to our product line as we ramp into higher power applications."

### Availability

For samples of the 35 mOhm and 50 mOhm TO-247-4L FETs, contact Transphorm's sales team at [wwwsales@transphormusa.com](mailto:wwwsales@transphormusa.com). Datasheets for each device can be found at the below links:

- TP65H035G4YS datasheet: <https://www.transphormusa.com/en/document/data-sheet-tp65h035g4ys/>
- TP65H050G4YS datasheet: <https://www.transphormusa.com/en/document/data-sheet-tp65h050g4ys/>

### About Transphorm

Transphorm, Inc., a global leader in the GaN revolution, designs and manufactures high performance and high reliability GaN semiconductors for high voltage power conversion applications. Having one of the largest Power GaN IP portfolios of more than 1,000 owned or licensed patents, Transphorm produces the industry's first JEDEC and AEC-Q101 qualified high voltage GaN semiconductor devices. The Company's vertically integrated device business model allows for innovation at every development stage: design, fabrication, device, and application support. Transphorm's innovations move power electronics beyond the limitations of silicon to achieve over 99% efficiency, 50% more power density and 20% lower system cost. Transphorm is headquartered in Goleta, California and has manufacturing operations in Goleta and Aizu, Japan. For more information, please visit [www.transphormusa.com](http://www.transphormusa.com). Follow us on Twitter @transphormusa and WeChat at Transphorm\_GaN.

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