

Taiwan Semiconductor Adds 80V/100V Power MOSFETs to its High-Performance PerFET™ Family

PerFETs offer industry best figure of merit.

Single-/dual-output, automotive-grade

devices target high-speed-switching, commercial and industrial applications.

BREA, CA, UNITED STATES, March 18, 2025 /EINPresswire.com/ -- [Taiwan Semiconductor](#) (TSC), a

“

By adding 80- and 100-volt devices to our PerFET family, designers have even more options for increasing efficiency and reliability in their power switching applications.”

*Sam Wang, Vice President,
TSC Products.*

global supplier of discrete power electronics devices, LED drivers, analog ICs and ESD devices, has expanded its PerFET family of power MOSFETs with the addition of [80V and 100V](#) versions. Based on TSC's proprietary PerFET device structures and processes, the new 80V/100V N-channel power MOSFETs offer a best-in-class figure of merit (FOM: $RDS(on)*Q = 184$) and an industry-leading 175°C avalanche rating. The AEC-Q-qualified devices are ideal for automotive power applications—and myriad non-automotive commercial and industrial power applications that demand efficient, reliable performance.

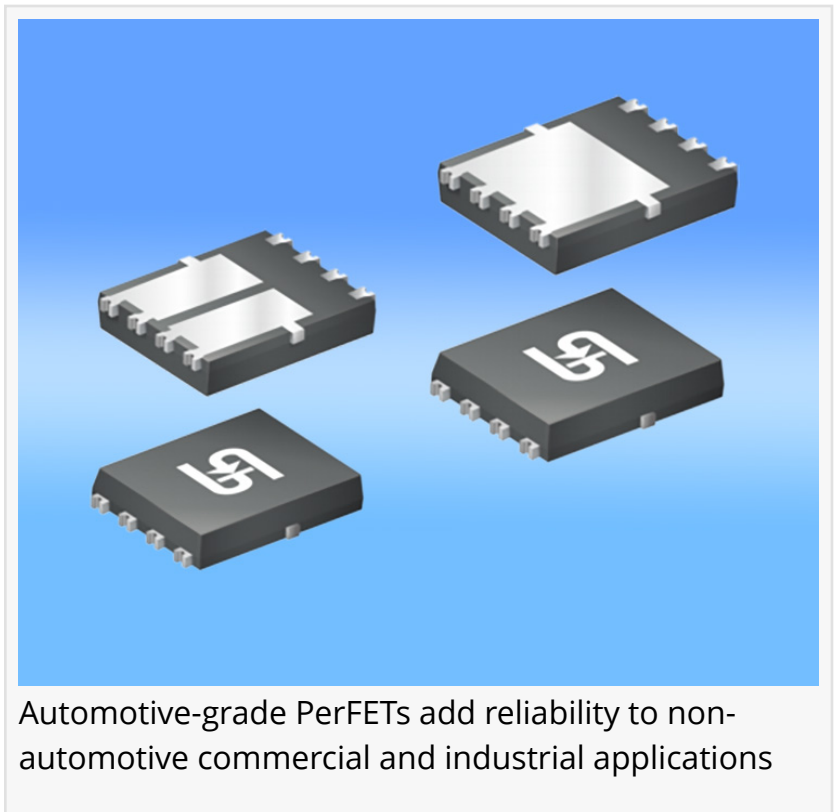
PerFET devices are housed in TSC-designed, industry-standard-size (5mm x 6mm) PDFN56U (single/dual) packages whose wettable flank improves solder joint reliability and AOI accuracy during PCB assembly. The PerFETs' low on-resistance ($RDS(on)$) reduces conduction losses and their very low gate charge (Qg)—optimized for high-speed communication applications—offers the most efficient solution available for 48V input DC/DC converters.

Six devices comprise the new 100V PerFET series, with single-output current ratings of 50-100A and dual-outputs rated at 31A. Target applications are 48V automotive, SMPS, server and telecom, DC-DC converters, motor drives and polarity switches. The new 80V PerFET series also offers six devices. Single-output models feature current ratings of 33-110A and 31-33A for dual-output models. In addition to those targeted by the 100V series, 80V PerFETs are suitable for ideal diodes, USB-PD and type-C charger/adapters, UPS, solar inverters, LED lighting and telecommunications power applications.

“Because our PerFET power MOSFETs are built to automotive standards, design engineers can

use them to achieve automotive-grade reliability in competitively priced, non-automotive applications—while eliminating proof-of-qualification paperwork necessary when using automotive parts,” said Sam Wang, vice president, TSC Products. “By adding 80- and 100-volt devices to our PerFET family, designers have even more options for increasing efficiency and reliability in their power switching applications.”

Kevin Parmenter
TSC America, Inc
+1 415-271-0425
[email us here](#)



Automotive-grade PerFETs add reliability to non-automotive commercial and industrial applications

This press release can be viewed online at: <https://www.einpresswire.com/article/793204376>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.