

# Taiwan Semi's New 1,200V and 1,600V Rectifiers Meet Automotive-Quality Standards

*HS1Q (1,200V) and SxY Series (1,600V) AEC-Q101-qualified high-voltage rectifiers are ideal for transportation and non-automotive applications*

BREA, CA, UNITED STATES, April 24, 2025 /EINPresswire.com/ -- [Taiwan Semiconductor](https://www.einpresswire.com/), global supplier of discrete power electronics devices, LED drivers, analog ICs and ESD protection, introduces two new series of high-voltage rectifiers manufactured to AEC-Q101 standards and offered in automotive and commercial grade versions. The fast-recovery [HS1Q Series](#) (1,200V, 1A, high-efficiency) and the standard-recovery [SxY Series \(2A, 1,600V and 1A, 1,600V\)](#) rectifiers feature 175°C max junction temperature, high-voltage reverse recovery, low forward voltage drop and high surge current capability. The rectifiers' DO-214AC (SMA) package is RoHS compliant and halogen-free. Production Part Approval Process (PPAP) documentation is available.



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*Sam Wang*

As surface-mount parts produced to meet AEC-Q101 automotive-grade standards, the HS1Q and SxY Series devices offer an intrinsically high-quality choice. They are ideal for bootstrap, freewheeling and desaturate applications for IGBT, MOSFET and WBG gate drivers used in electric vehicles and high-voltage battery systems. Other applications include alternative energy systems; grid-tied and smart grid systems; medical, industrial, UPS systems and plasma generators, smart electric metering and others.

“We are one of the few suppliers offering AEC-Q rectifiers with ratings above 1000 volts that have a combination of low forward voltage—plus fast 75-nanosecond reverse-recovery time,” said

Sam Wang, vice president, TSC Products. "The rugged nature of their construction allows the new HS1Q and SxY Series to withstand high inrush currents, which enhances reliability in automotive and non-automotive applications alike."

□ Available Now: Samples: In-stock (DigiKey and Mouser)

Lead Time: Production Quantities: 8-14 weeks (ARO)

Design resources include comprehensive datasheets, spice models and CAD files (symbol, footprint, 3D model).

About Taiwan Semiconductor (TSC).

Recognized for more than 45 years for its core competence in discrete power rectifiers, Taiwan Semiconductor's expanded product portfolio provides a complete solution from one source: including trench Schottky's, MOSFETs, 8power transistors, LED driver ICs, analog ICs and ESD protection devices. A global enterprise with over 2,000 employees, TSC's production facilities in China and Taiwan are fully compliant with current automotive and environmental standards such as IATF16949, ISO9001 and ISO14001. Taiwan Semiconductor products are used in a vast array of applications in the electronics industry including automotive, computer, consumer, industrial, telecom and photovoltaic. Through strategic expansion of innovative manufacturing capabilities and its focus on pioneering efficient semiconductor solutions, TSC is the right choice for a successful and lasting business relationship.

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