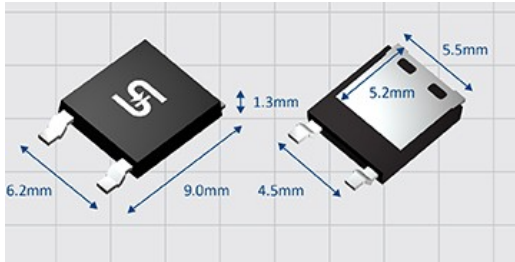


Taiwan Semiconductor's ThinDPAK Schottkys Deliver Power Density Upgrades

Planar Schottky rectifiers in unique, lighter “thin” package with same footprint as standard DPAKs offer drop-in improvements in power density and thermal performance; AEC-Q qualification assures reliability in a wide variety of applications.

Brea, CA.— September 27, 2023 — [Taiwan Semiconductor](#), a global supplier of discrete power



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electronics devices, LED drivers, analog ICs and ESD protection devices, announces its new [ThinDPAK®](#) family of ultra-fast-recovery Schottky rectifiers.

ThinDPAK devices have the same footprint as standard DPAKs – but come in a thinner (1.33mm) package and offer superior power density and thermal performance. Fully AEC-Q qualified with a maximum operating temperature ($T_{j, max}$) of 175°C and typical reverse-recovery time of 25ns, ThinDPAKs assure reliability in automotive power

electronics, high-frequency inverters, steering diodes in HV applications, DC/DC converters, as freewheeling diodes, reverse battery protection, lighting and many other applications.

The planar Schottky topology of advanced ThinDPAK devices provides industry-leading rectification efficiency that dissipates less heat than alternatives. For the heat that is dissipated, the new ThinDPAK devices' thermal resistance ($R_{j\theta A}$) is 21.9% lower. Moreover, the devices save both weight and headroom compared to standard DPAKs.

“Our new ThinDPAKs are an excellent choice for optimizing new designs – and also for upgrading the performance of existing designs,” said Sam Wang, vice president, TSC Products. “Although ThinDPAKs are thinner, their footprint is identical to standard DPAKs, allowing simple drop-in replacement and easy trial.”

The ThinDPAK series comprises a selection of 34 devices with reverse voltage (V_{VRRM}) ratings from 45Vdc to 200Vdc with current ratings up to 150A. Devices are available in single and dual (common cathode) configurations.

Click [here](#) for more information and links to complete product specifications. Design resources include comprehensive datasheets and spice models for each component in the series.

Price (Production Quantities): From \$0.31 (depending on device and quantity)

Lead Time: Samples: In-stock

Production Quantities: 12 weeks (ARO)

About Taiwan Semiconductor (TSC).

Recognized for more than 40 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, power transistors, LED driver ICs, analog ICs and ESD protection devices. A global enterprise with 2,000 over 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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