

## Taiwan Semiconductor's New ESD Devices Target Wearables

*The TESD Series' bidirectional proprietary clamping cells in ultra-small DFN0603 package provide ESD protection up to  $\pm 30\text{kV}$ ; Unique size/performance features optimize wearables and other ESD-sensitive applications.*



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Brea, CA. — October 31, 2023 — [Taiwan Semiconductor](#), a global supplier of discrete power electronics devices, LED drivers, analog ICs and ESD protection devices, announces its new [TESD Series](#) of single-channel ESD clamping diodes offering size and performance specifications optimized for wearable applications. The new TESD devices' unique design features proprietary bidirectional clamping cells (for ESD protection up to  $\pm 30\text{kV}$ ) in an ultra-small DFN0603 package.

The devices in the new TESD Series are offered in versions with 5.0V and 3.3V (max.) operating voltages and provide protection in compliance with IEC61000-4-2 (ESD) to  $\pm 20\text{kV}$  (air/contact) and IEC61000-4-5 (lightning) to 4.5A (8/20 $\mu\text{s}$ ). A second 3.3V model in the series increases these specs to  $\pm 30\text{kV}$  and 8.2A, respectively.

“Compared to handheld products, wearable products must meet more stringent package size requirements along with ESD standards – so our TESD series' DFN0603 package offers clear advantages,” said Sam Wang, vice president, TSC Products. “Besides being the optimum choice for wearable applications, their ultra-small size combined with ultra-low capacitance make these protection devices beneficial in a range of other ESD-sensitive applications, including HDMI, display port and high-speed video I/O; USB 3.0 and 3.1; industrial I/O (RS485); SATA and eSATA; RAID, NAS and SAN systems.”

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 **\$0.09** (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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