



# Automotive Qualified 400V & 600V ESD Capability Rectifiers

Taiwan Semiconductor (TSC), a global supplier of discrete power electronics devices, LED drivers, analog ICs and ESD protection devices, announces an additional 400V & 600V ESD capability rectifiers to the portfolio. These devices meet the need for polarity protection plus ESD survival and protection.

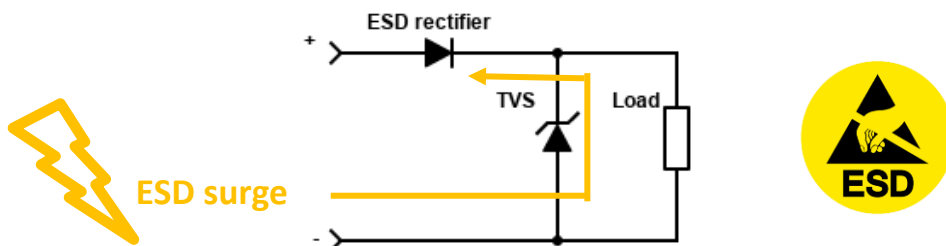
## Key Benefits

- Enhance ESD capability >10KV per IEC-61000-4-2.
- Operating temperature range from -40°C to 175°C for high reliability.
- Both Automotive AEC-Q and Industrial grades available.
- Upgrade – replacement for other devices on the market.

## Applications

- General purpose diode –rectification.
- Polarity protection from reverse voltage conditions while also surviving application of ESD events. Standard rectifiers are limited to ESD capability of < 1.5kV and cannot meet industry standards (per IEC-61000-4-2 contact mode). Standard polarity protection rectifiers will punch through suffering damage additionally this failure mode could include TVS damage as well or walking wounded damage which manifests failure in the future during normal operation. ESD capable rectifiers survive and protect the equipment under test.

These latest standard rectifiers with ESD capability meet standards including > 10,000 volts (per IEC-61000-4-2 contact mode). TSC ESD capability rectifier family could sustain ESD surge up to 10,000 volts without damage.





**Product Portfolio**

Technology	Part Number	$V_{RRM}(V)$	$I_F (A)$	$V_F (V)$	IEC-61000-4-2 Contact Mode	$T_J (°C)$	Package	AEC-Q
STD GPP	TSD1GLW	400	1	1.1	>10KV	175	SOD-123W	No
STD GPP	TSD1GLWH	400	1	1.1	>10KV	175	SOD-123W	Yes
STD GPP	TSD2GFS	400	2	1.1	>10KV	175	SOD-128	No
STD GPP	TSD2GFSH	400	2	1.1	>10KV	175	SOD-128	Yes
STD GPP	TSD2GAL	400	2	1.1	>10KV	175	ThinSMA	No
STD GPP	TSD2GALH	400	2	1.1	>10KV	175	ThinSMA	Yes
STD GPP	TSD3GFS	400	3	1.1	>10KV	175	SOD-128	No
STD GPP	TSD3GFSH	400	3	1.1	>10KV	175	SOD-128	Yes
STD GPP	TSD3GAL	400	3	1.1	>10KV	175	ThinSMA	No
STD GPP	TSD3GALH	400	3	1.1	>10KV	175	ThinSMA	Yes
STD GPP	TSD1JLW	600	1	1.1	>10KV	175	SOD-123W	No
STD GPP	TSD1JLWH	600	1	1.1	>10KV	175	SOD-123W	Yes
STD GPP	TSD2JFS	600	2	1.1	>10KV	175	SOD-128	No
STD GPP	TSD2JFSH	600	2	1.1	>10KV	175	SOD-128	Yes
STD GPP	TSD2JAL	600	2	1.1	>10KV	175	ThinSMA	No
STD GPP	TSD2JALH	600	2	1.1	>10KV	175	ThinSMA	Yes
STD GPP	TSD3JFS	600	3	1.1	>10KV	175	SOD-128	No
STD GPP	TSD3JFSH	600	3	1.1	>10KV	175	SOD-128	Yes
STD GPP	TSD3JAL	600	3	1.1	>10KV	175	ThinSMA	No
STD GPP	TSD3JALH	600	3	1.1	>10KV	175	ThinSMA	Yes

For more information or other products, please visit TSC website <https://www.taiwansemi.com/>