

AQ7538-08UTG & SC7538-08UTG Series 0.3pF 22kV TVS Diode Array

Low Loading Capacitance for Protecting High-Speed Signal Pins

Problem/Solution

The AQ7538 and SC7538 integrates eight channels of ultra-low capacitance rail-to-rail diodes and an additional Zener diode to protect electronics that may experience destructive electrostatic discharges (ESD). This robust device safely absorbs repetitive ESD strikes above the maximum level, $\pm 8\text{kV}$ contact discharge, as specified in the international standard IEC 61000-4-2.

Technical resources (Click on below icons to learn more)



AQ7538-08UTG
Series Page



SC7538-08UTG
Series Page

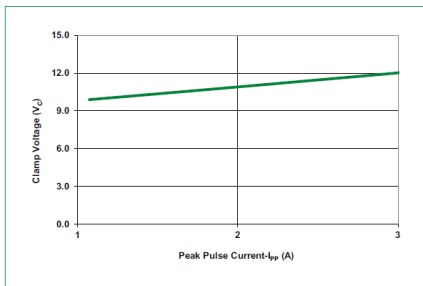


AQ7538-08UTG
Datasheet

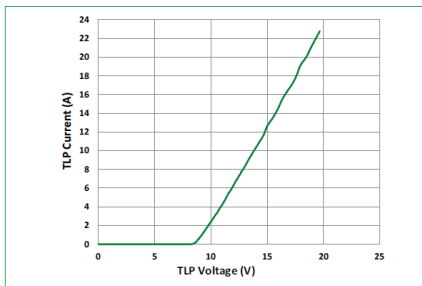


SC7538-08UTG
Datasheet

Clamping Voltage vs I_{pp}

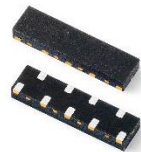


Positive Transmission Line Pulsing (TLP) Plot



Benefits

- Compliant with numerous IEC standards for ESD suppression and lightning surge protection
- AEC-Q101 Qualified and PPAP capable (AQ part)
- Safely dissipates high surge events
- Environmentally friendly



Features

- ESD, IEC 61000-4-2, $\pm 22\text{kV}$ contact, $\pm 30\text{kV}$ air
- ESD, ISO 10605, 330pF 330 Ω , +30kV/-18kV contact, +30kV/-18kV air (AQ part)
- Surge tolerance: IEC 61000-4-5 2nd edition, 3A ($t_p=8/20\mu\text{s}$)
- Low capacitance: 0.3pF @0V, 3GHz (TYP) per I/O
- Low leakage current: 0.5 μA (MAX) at 5V

Markets/Applications

- V-By-One
- Embedded DisplayPort
- USB 2.0/3.0/3.1 Ports
- HDMI
- Flat panel displays
- LCD/LED TVs
- Smartphones
- Mobile computing
- Automotive (AQ part)

