

Products

# Circuit Protection



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**Circuit Protection**  
**Low-Capacitance TVS**

## Semtech RClamp3331Z2C

01005 Size RClamp® 1-Line, 3.3V ESD Protection



RailClamp® TVS diodes are ultra-low capacitance devices designed to protect sensitive electronics from damage or latch-up due to ESD, EFT and EOS. They are designed for use on high-speed ports in applications such as cell phones, notebook computers, and other portable electronics. These devices offer desirable characteristics for board level protection including fast response time, low operating and clamping voltage, and no device degradation.

### Overview ▾

#### Features

- High ESD withstand voltage: +/-18kV (contact), +/- 22kV (air) per IEC 61000-4-2
- Ultra-small 01005 package
- Protects 1line
- Low ESD clamping voltage
- Working voltage: 3.3V
- Capacitance: 0.35pF (Typical)
- Low leakage current
- Low dynamic resistance: 0.18 Ohms (Typical)

#### Applications

- Smart Phones
- Wearables
- IoT Devices
- FM Antenna
- Tablet PC

## Packaging

- SLP0402P2X4C (0.43 x 0.23 x 0.15mm)

## Order Codes

- RClamp3331Z2CTKT


## Datasheets and Resources >

### Tools and Resources

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## Interfaces

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## Blog Articles

[Shield USB4 Against EOS and ESD](#)

[Protecting Wi-Fi 6/6E Routers From Overvoltage](#)

[Protection of IO-Link With Semtech's SurgeSwitch](#)

## In the News

[Automotive CAN protection](#)

[Semtech SurgeSwitch protects circuits and systems operating in harsh](#)

Semtech Strengthens its RClamp  
Platform with a TVS Array for Protecting  
Industrial and Telecommunications  
Electronics

## Press Releases

Semtech Unveils SurgeSwitch™ System  
Transient Protection Product Line,  
Offering Compelling Performance  
Advantages Over Conventional TVS  
Devices

Semtech Announces EClamp® Device To  
Solve Challenging EMC Immunity  
Requirements

Semtech Introduces New RClamp®  
Device for Safeguarding USB Type-C  
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