

# 30 KV ESD PROTECTION FOR HIGH SPEED DATALINE I/O



## Most Reliable for High-speed Dataline I/O Protection up to 32VDC

Available in popular 0402 and 0603 package sizes. Provides ultra-low capacitance to maintain signal integrity for data rates up to 5.0GHz. Best suited for high-speed applications like USB 3.1, IEEE1394,HDMI 2.0 and DVI.

Xtreme-Guard™ XGD Series ESD suppressors with breakthrough technology exhibit ultra-low (<1 nanoamp) leakage current. The XGD Series' extremely low power consumption makes it ideal for use in battery-powered devices.







### **Applications**

- Wearable Devices
- Notebooks/Laptops/PCs
- Gaming Consoles
- Smart TVs
- Smartphones
- Tablets
- Set-Top Boxes
- Networking and Wireless Hardware
- Stationary and Portable Medical Devices





# Breakthrough ESD technology protects a broad range of sensitive electronic devices



0603 Footprint

### **Features**

- High ESD Withstand Rating
  30kV contact /air discharge
- High voltage rating
  - 24Vdc XGD10402
  - 32Vdc XGD10603
- Low (<1nA) leakage current</li>
- Ultra-low capacitance
- 0.04pF XGD10402
- 0.09pF XGD10603
- · Flat top, surface mount form factor



0402 Footprint

### **Benefits**

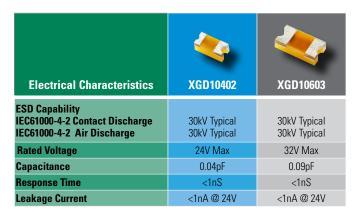
- Greater level of ESD protection and design flexibility for enclosure, button, and touch screen
- Wider voltage range for a broader variety of electronic devices
- Lower power consumption, ideal for battery powered devices, such as wearable devices, and energy-efficient devices
- Ideal for high-frequency & high-speed data, video, antenna, and I/O circuits
- Facilitates pick-and-place assembly and enables more compact circuit board designs



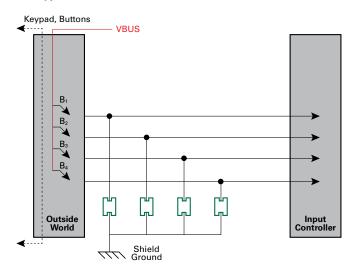


### **Design Considerations**

- Proper placement of the XGD series devices on the circuit board is a key design consideration inorder to achieve optimal ESD suppression. It's best to place the XGD Series device:
  - As close to the source of the fast-rising ESD transient as possible, and
  - As close to the signal input as possible; ahead of any other component
- When serving as the first board-level circuit component encountered by ESD events, the XGD Series can safely absorb repetitive ESD strikes close to four times the maximum level specified in the IEC61000-4-2 international standard without performance degradation



### In Keypads, Buttons, and Touch Screen Circuits



### In HDMI 2.0, USB3.0, and Gigabit Ethernet Circuits

