

# PORTNOTE®

## **SATA HDD Interface**

### **Data & Power Protection**

#### **Solution Products**





CDDFN10-0524P

#### **Objective**

SATA Hard Disk Drives are typically powered from 5 VDC. The power line needs transient, inrush and reverse polarity protection. There are also data lines susceptible to damage from ESD events when the drive is not connected.

#### Solution

1 Multifuse® PPTC Resettable Fuse: MF-MSMF075/24-2 1 TVS Diode: SMBJ5.0A 1 TVS Diode Array: CDDFN10-0524P

#### **Compliance**

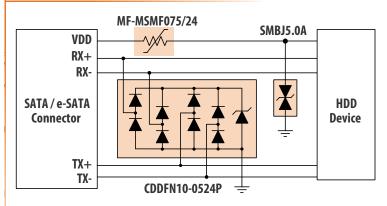
IEC 61000-4-2 ESD Level 4, 8 kV

#### **Alternate Recommendations**

HDD powered from 12 VDC would instead use a model SMBJ12A TVS Diode on the power line.

#### Benefit

This solution provides surge, inrush and reverse polarity protection on the power line and ESD protection on the data lines.



The schematic above illustrates the application protection and does not constitute the complete circuit design. Customers should verify actual device performance in their specific applications.

### **Design Kit**



PN-DESIGNKIT-28

**BOURNS**®

**Americas:** *Tel* +1-951 781-5500

*Fax* +1-951 781-5700

**Asia-Pacific:** *Tel* +886-2 256 241 17 Fax +886-2 256 241 16 Bourns® PortNote® solutions provide protection recommendations for typical port threats.

For more information, go to:

www.bourns.com

or email: protection@bourns.com

**Europe:** *Tel* +41-(0)41 768 55 55 Fax +41-(0)41 768 55 10

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