

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.

Compliance

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

Alternate Recommendations

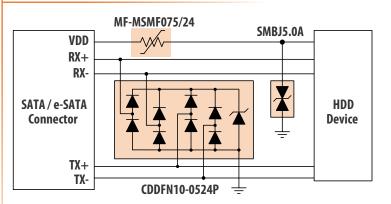
HDD powered from 12 VDC would instead use a model SMBJ12A TVS Diode on the power line.

Solution

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

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

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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