RS-485
Serial Port - ESD / EFT / Surge Protection

Bourns® PortNote® solutions provide protection recommendations for typical port threats.

Solution Products

Objective
RS-485 (TIA/EIA-485) is a balanced data transmission scheme that uses voltage levels from -7 V to +12 V (max.) at data rates up to 10 Mbps. This solution provides protection against ESD, EFT, power and surge faults.

Solution
2 TBU® High-Speed Protectors: TBU-CA065-300-WH
2 MOVs: MOV-10D201K
1 TVS Diode Array: CDSOT23-SM712

Compliance
IEC 61000-4-2 ESD Level 4 (8 kV / 15 kV)
IEC 61000-4-4 EFT
IEC 61000-4-5 Surge / Lightning

Alternate Recommendations
SMBJ6.5A and SMBJ12A TVS Diodes with MF-RM012/240 Multifuse® PPTC Resettable Fuse

Benefit
This solution provides excellent protection for both indoor and outdoor applications. It also protects against 28 VRMS and 120 VRMS power cross condition.

To order samples, click on the "Request Sample" button.

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.