

# PORTNOTE\*

# USB

# **USB 3.0 - ESD & Overcurrent Protection**

#### **Solution Products**



MF-NSMF200



CG0402MLU-05

## **Objective**

Universal Serial Bus (USB) 3.0 ports provide up to 5 Gbps data transfer rates and 5 V power at up to 900 mA. As a hot-pluggable interface, it typically requires protecton against ESD, short circuits and faulty equipment.

#### Solution

1 Multifuse® PTC: MF-NSMF200 6 ChipGuard® ESD Suppressors: CG0402MLU-05

## **Compliance**

USB 3.0 UL60950 IEC 61000-4-2 Level 4 (8 kV / 15 kV)

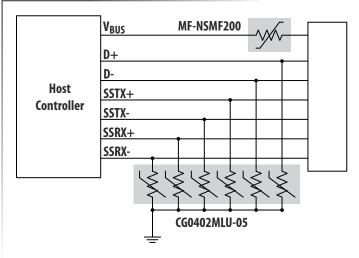
### **Alternate Recommendations**

 $Other\ PortNote^{{}^{\text{\tiny{TM}}}} \ Solutions:$ 

• USB: USB 2.0 - ESD & Overcurrent Protection

#### Benefit

This solution provides USB 3.0 ports with compatible protection without impairing the transmission of power or data.



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 4

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

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