10/100 Base-T Power over Ethernet (PoE) PD Unit Protection

**Objective**
10/100 Base-T Power over Ethernet (PoE) interfaces combine data and DC power to provide remote power to a Powered Device (PD). This solution provides ESD and overvoltage protection for the PD unit.

**Solution**
- 1 TVS Diode Array: CDDFN10-3304NA
- 2 Bridge Rectifiers: CD-MBL106SL
- 1 TVS Diode: SMBJ64A
- 1 Transformer: SM51108PEL

**Compliance**
- IEEE 802.3af Types 1 & 2
- IEC 61000-4-2 Level 4 (8 kV / 15 kV)

**Alternate Recommendations**
- **Other PortNote** Solutions:
  - Ethernet - ESD Protection
  - Ethernet - 10/100 Base-T Power over Ethernet (PoE) PSE Unit Protection
  - Ethernet - Quad Port Power over Ethernet (PoE++) PSE Unit Protection

Contact Bourns for PoE++ or Gbit PoE port solutions.

**Benefit**
This solution provides ESD protection for 10/100 Base-T PoE PD devices without impairing the Ethernet signal.

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