

This application note provides information on how to protect Silvertel Power over Ethernet (POE) modules from over-voltages exceeding the 80V maximum rated surge input voltage.

An inexpensive but effective solution can be achieved by connecting Tranzorb diodes across each of the POE module inputs.

SMAJ58CA bidirectional Tranzorb diodes will provide protection from surges up to 400W for 1ms. If higher surge current capability is thought necessary, then 600W SMBJ58CA or 1500W SMCJ58CA devices would be suitable.

Figure 1 shows how to protect Silvertel POE modules which have dual inputs with internal polarity protection:

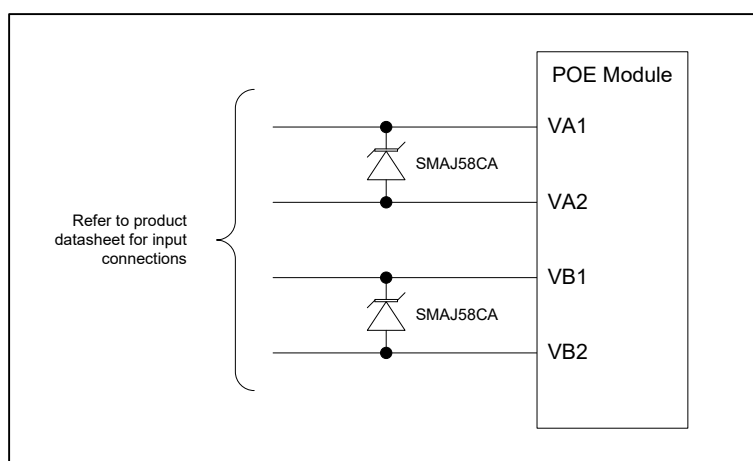


Figure 1: Dual input POE modules with polarity protection

Figure 2 shows how to protect Silvertel POE modules which have a single input without internal polarity protection:

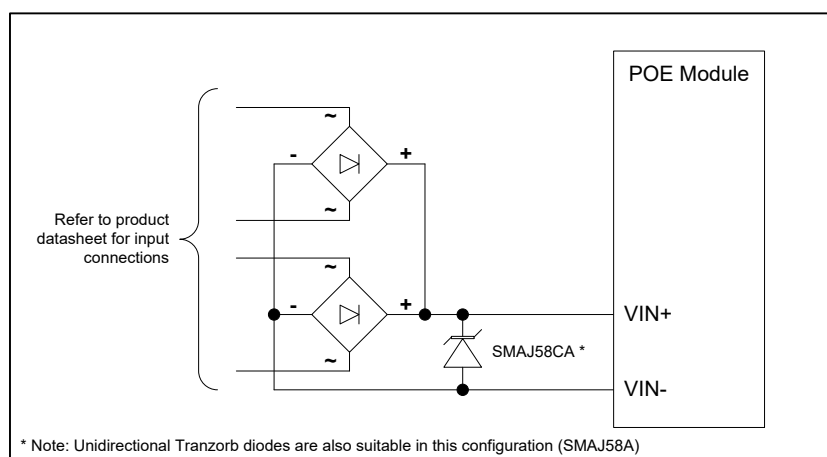


Figure 2: Single input POE modules without polarity protection

Figure 3 shows how to protect Silvertel POE modules which have dual inputs without internal polarity protection:

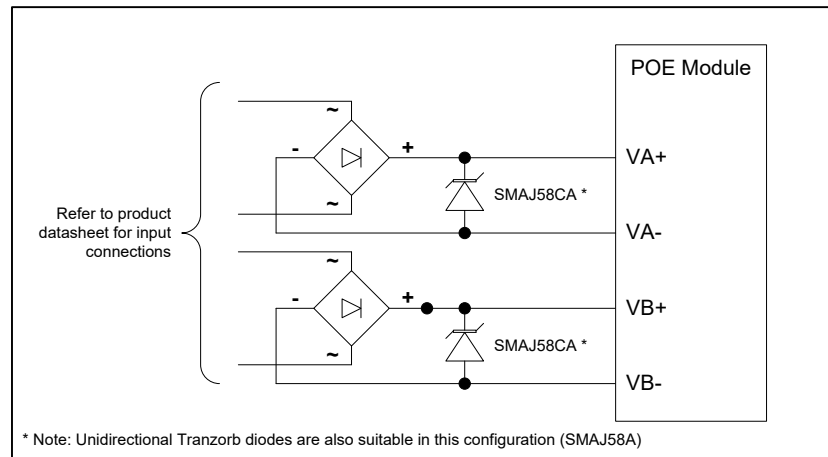


Figure 3: Dual input POE modules without polarity protection