

LAN / WAN Protectors

10Base-T Protection

Capacitance across the pair of wires = (D1 || D2) + P0640EA/SA

The MUR 1100E diodes capacitance is approximately (10 pF || 10 pF) 20 pF. Then, adding the capacitive effect of the *SIDACtor* (typically 50 pF), the total capacitance across the pair of wires is approximately 14 pF. This provides a GR 1089 intra-building compliant design. (Figure 3.58)

Note: MURS160T3 is an SMT equivalent of the MUR 1100E.

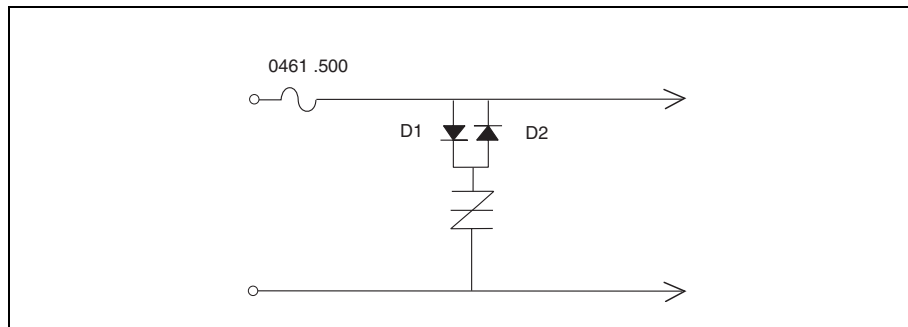


Figure 3.58 10Base-T Metallic-only Protection

Figure 3.59 shows an application requiring longitudinal protection.

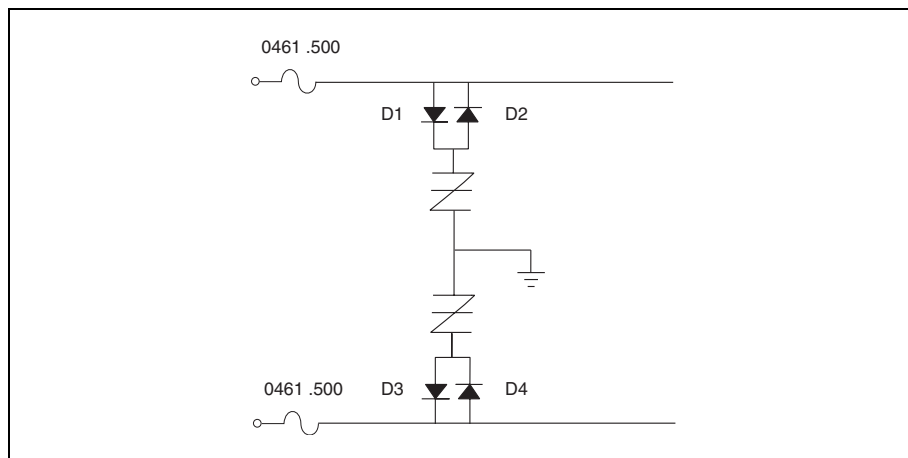


Figure 3.59 10Base-T Metallic and Longitudinal Protection

100Base-T Protection

Capacitance across the pair of wires = $(D1 \parallel D2) + P0640EA/SA + (D3 \parallel D4)$

The MUR 1100E pair of diodes capacitance is approximately $(10 \text{ pF} \parallel 10 \text{ pF})$ 20 pF. Then, adding the capacitive effect of the P0640EA/SA (typically 50pF), the total capacitance across the pair of wires is approximately 8 pF. This will provide a GR 1089 intra-building compliant design. (Figure 3.60)

Note: MURS160T3 is a SMT equivalent of the MUR 1100E.

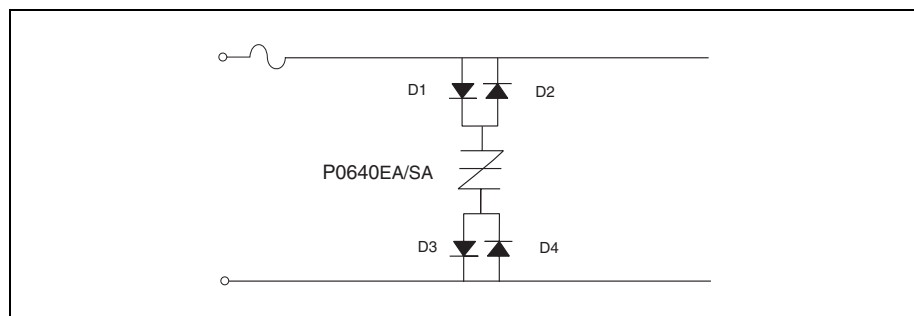


Figure 3.60 100 Base-T Protection

The P0642SA is a very low capacitance device that requires no compensating diodes. (Figure 3.61)

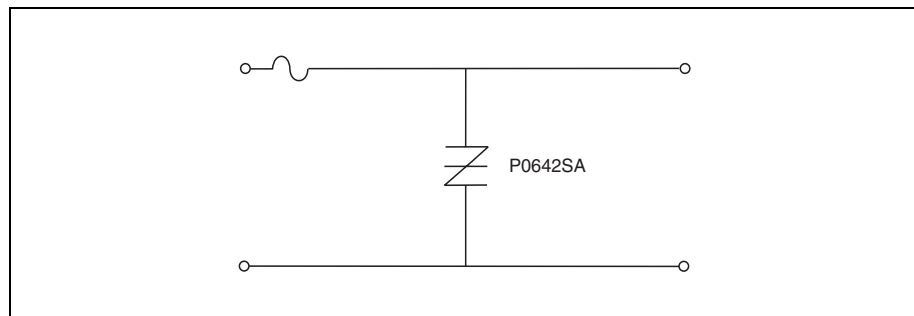


Figure 3.61 100 Base-T Protection Without External Compensation