



MOV vs. Diode Characteristics

Characteristics	MOV	Diode
Energy	Higher	Lower
Clamping	Higher	Lower
Polarity	Bipolar	Unipolar & Bipolar
Capacitance	1 to 4 nF	100 pF to 3 nF
Standoff Voltage	Medium to High	Low to Medium
Leakage Current	Higher	Lower
Screening	Limited	Extensive JANTX/TXV/S
Cost	Lower	Higher

Attributes of Popular Transient Voltage Suppression MOV & Diode

Advantages	<ul style="list-style-type: none"> · Typically fail as an open circuit · Wide range of breakdown voltages 	<ul style="list-style-type: none"> · Fast response time (<1ns) · Low clamping voltage
Disadvantages	<ul style="list-style-type: none"> · Inherent bipolar clamping · Single layer MOV have limited life 	<ul style="list-style-type: none"> · Limited power capability · Typically fail as a short circuit · Power rating decreases w/ temperature