

Reed Relay in Comparison with Solid-State and Mechanical Relay

Specifications	Reed Relay	Mechanical Relay	Semi-conduct Relay
Switching Time	100 μ s - 1 ms	> 5 ms	< 100 μ s
Life Expectance: Low Level	10 ¹⁰ Cycles	10 ⁶ Cycles	nearly unlimited
Power Consumption	3mW possible	50 mW	3 mV possible
Switching Voltage	10 kVDC	1.5 kVDC	1.5 kVDC
Switching Current	max. 3A	up to 40A	up to 40A
Load Minimum	no load required (μ V/pA)	50 mW	50 mW
Insulation Resistance	10 ¹⁴ Ohm	10 ⁹ Ohm	10 ⁹ Ohm
Noise	no switching noise	switching noise	no switching noise
Insertion Loss	low (0.5dB)	low (0.5dB)	high (2dB)
Overload	very sensitive	insensitive	
General	Linear graph from DC to GHz range	Linear graph from DC to GHz range	distortion of the signal
General	galvanic isolation (air gap)	galvanic isolation (air gap)	no galvanic isolation (Low/High)