

What is the difference between a capacitor and a closed circuit?

Capacitor: at $t=0$ is like a closed circuit (short circuit) at ' $t=\infty$ ' is like open circuit (no current through the capacitor) Long Answer: A capacitors charge is given by $V_t = V(1 - e(-t/RC))$ $V_t = V (1 - e (- t / R C))$ where V is the applied voltage to the circuit, R is the series resistance and C is the parallel capacitance.

Do capacitors have continuity?

The higher the capacitance, the more energy it can store and vice versa. But, should capacitors have continuity? Capacitors should not have continuity. However, when testing the capacitor using the continuity function of a multimeter you might get intermittent 'beeping' due to the capacitor charging and discharging.

Can long wires have a delay?

It is possible that long wires can have a delay that is equivalent to a lumped capacitor two to six times that is predicted by the total capacitance of the wire. Because the RC of such long wires is determined by the output impedance of the driver, the wire characteristics, and the size of the receiving gate, a simple approach is needed.

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Is Everything a capacitor?

Everything has capacitance, so everything is a capacitor. The question is, is this aspect of the object in question a dominant, defining, or significant characteristic compared to its other characteristics when considering a particular behavior. Olin correctly describes why capacitance is only a part of the observed behavior of the wire pair.

Why does a capacitor look like a short for no time?

Until they charge, a cap acts like a short circuit, and an inductor acts like an open circuit. When you turn on an ideal switch from an ideal voltage source, to an ideal capacitor you get some odd solutions, in this case infinite current for an infinitesimal time. So it looks like a short for no time.

Why does a capacitor act like a short circuit at $t=0$?

Capacitor acts like short circuit at $t=0$, the reason that capacitor have leading current in it. The inductor acts like an open circuit initially so the voltage leads in the inductor as voltage appears instantly across open terminals of inductor at $t=0$ and hence leads.

With long enough wires and high quality/low value capacitors, you could create a resonance at the switching frequency that would actually amplify the noise at that frequency. ...

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Long term reliability may be a problem, but 64V on a 63V cap is not going to make much difference. Look for electrolytic data sheets and see if you can find one with a ...

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