



Film Capacitors

Application note for Y2 EMI capacitors

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Application note for Y2 EMI capacitors

A Y capacitor to be connected between AC lines and the Frame Ground (FG) has an effect of emitting common mode current to the FG. Leak current corresponding in frequency and voltage to the AC power supply flows in the Y capacitor.

As the capacity of a Y capacitor grows, leak current also increases. This can cause electric shock. Therefore, UL and other safety standards restrict the capacity so that the amount of leak current does not exceed a certain level. Usually, two Y capacitors are used, as shown in Figure below. As AC lines are connected with capacitors, they are effective in reducing differential mode noises. In particular, they are effective for high frequency ranges of 8 to 10 MHz.

Example of EMI suppression, typical application:

