

Bypass/ De-Coupling

In bypass applications the AC portion of a mixed signal is to be kept from appearing at the input of a circuit element. Bypass is the opposite to coupling. To have the AC portion of the input signal "bypass" the circuit element, the capacitor is placed in parallel with the circuit element. The total impedance of the capacitor should be 10 % or less of the input impedance of the circuit element. The most important capacitor characteristics in bypass applications are:

- The ESR
- Impedance change vs. frequency
- Self resonant frequency of the capacitor

