Capacitor Design & Characteristics

For each component type we will discuss the materials used in the design, how differences in construction techniques affect their performance, and important characteristics to consider in your design.

Ceramic Capacitors
Polymer Capacitors
Tantalum Capacitors
Film X&Y and Power Film Capacitors
AC Line Filter
Aluminum Electrolytic Capacitors
Filters

Application Areas

Applying the information learn in the previous sections, discussions focus on how to apply those characteristics to real-world applications.

Parasitics in Capacitors
Dielectric Comparison
X2 Suppression Capacitors
AC Line Filters
Self-Heating
Film versus Aluminum Electrolytic Capacitors
Tantalum Capacitors versus Polymer Capacitors and MLCC's
KSIM
Self-Resonance Frequency
End of Life Calculations
Filters and Power Factor Correction