

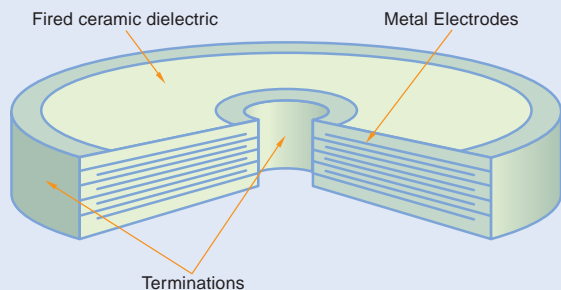
Surface Mount Chip Capacitors

Discoidal Chip Capacitors

COG/X7R

Introduction/Technical Summary

The Discoidal Chip Multilayer Ceramic Capacitor is the natural complement to the single plate and tube ceramic capacitors which are the key elements of many EMI filters. The single layer designs are limited in capacitance values available, whilst the Multilayer Discoidal Chip process has increased the range to 4.7 μ F. Discoidal Chip Multilayer Ceramic Capacitors are of a configuration suitable for direct mounting into filters, onto bulkheads and hybrid circuits. Due to their geometry, they have excellent RF performance characteristics as well as very high Self Resonant Frequencies. They are offered with a choice of COG or X7R ceramic.



General Specification

Sizes:

From 2.5mm to 25mm outside diameter

Dielectrics:

COG, X7R

Capacitance Range:

10pF to 4.7 μ F

Capacitance Tolerance:

$\pm 2\%$, $\pm 5\%$, $\pm 10\%$, $\pm 20\%$, $-20\%+80\%$, $-0\%+100\%$

Voltage:

50V to 3kV

Operating Temperature Range:

COG/X7R, -55°C to $+125^{\circ}\text{C}$

Termination Options:

Silver-Palladium, Silver-Platinum, Gold over Nickel

The above parameters are indicative, please contact our Sales Office with your specific enquiry.

For a product to meet your individual requirement please specify:

Capacitance

Test conditions as listed under 'Quality Requirements' page 8.

Tolerance

Test conditions as listed under 'Quality Requirements' page 8.

DC Voltage

Temperature range

Dielectric

Dimensions

Outside Diameter	MIN	MAX
Inside Diameter	MIN	MAX
Thickness		MAX

Termination requirements

Application Notes

Discoidal Chip Multilayer Ceramic Capacitors are manufactured using the same material as the SMT Chips, they therefore have the same general characteristics as already listed in this catalogue. Handling, transportation, storage & cleaning apply equally to both Surface Mount Rectangular and Discoidal Chips.

Insertion Loss

At a given frequency, the insertion loss of a filter connected into a given transmission system is defined as the ratio of voltages appearing across the line immediately beyond the point of insertion, before and after insertion of the filter under test.

The discoidal chip MLC capacitors are capable of providing almost theoretical insertion loss performance when installed in metal cases or onto a metal chassis.

Theoretical Insertion Loss of Ideal Capacitors

