



CAPACITOR ARRAYS



The Cap-Rack (US Patent 6,058,004) is an assembly of individual chip capacitors, bonded with high temperature epoxy. This construction permits the assembly of dissimilar capacitance values or dielectrics into one single component, providing extended freedom for board space utilization. The design reduces harmful thermal stress during assembly, behaving as individual components, not as a single large ceramic mass. The Cap-Rack also reduces “cross talk” to insignificant levels by elimination of capacitance coupling between adjacent capacitors. Cap-Racks are available as groupings of chip sizes 0603, 0805, 1005, 1206, 1210, 1808, 1812, 1825, 2221 and 2225 from pairs to as many as eight chips. Custom sizes, particularly for high voltage applications, are also available. Footprint dimensions can vary to optimize board space usage. The tables provide typical dimensions and footprints for highest capacitance designs. Consult NOVACAP for your specific requirements.

Advantages:

- Negligible cross talk
- Combine dielectrics
- Capacitor matching
- Combine resistors/inductors
- Mix & match capacitance values
- Reduced placement cost
- Reduced board area
- Easier to handle
- Reduces component stress
- Decreased cycle time

Features:

- Up to 6 capacitors in 0603-1808
- Up to 8 capacitors in 1812-2225
- Barrier termination for soldering
- Palladium/silver termination for conductive epoxy
- High Reliability versions available
- Can be used with traditional pick and place equipment

Applications:

- Multi-line designs
- Mobile phones
- Computer products
- Medical products
- Automotive products
- Network products

Size	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
Max # of Caps	6	6	6	6	6	6	8	8	8	8

For capacitance values and voltage offerings for the case sizes shown above please refer to the appropriate Dielectric (C0G, X7R, Y5V), High Voltage or High Reliability catalog pages. Custom sizes and voltages are available, please contact the factory for a solution that will meet your specific needs.



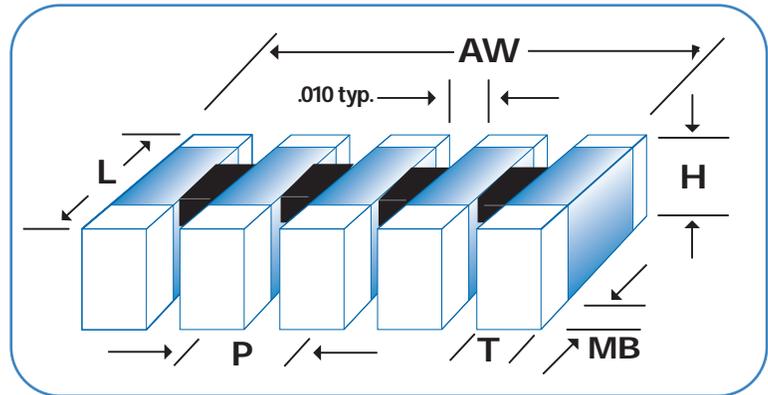
DIMENSIONS - INCHES (MM)

SIZE	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
LENGTH L	.060 (1.52)	.080 (2.03)	.100 (2.54)	.125 (3.18)	.125 (3.18)	.180 (4.57)	.180 (4.57)	.180 (4.57)	.220 (5.59)	.220 (5.59)
HEIGHT H	.030 (.760)	.050 (1.27)	.050 (1.27)	.060 (1.52)	.100 (2.54)	.080 (2.03)	.125 (3.18)	.250 (6.35)	.210 (5.33)	.250 (6.35)
T MAX.	.035 (.889)	.054 (1.37)	.054 (1.37)	.064 (1.63)	.065 (1.65)	.065 (1.65)	.065 (1.65)	.080 (2.03)	.080 (2.03)	.080 (2.03)
MB	.014 (.355)	.020 (.508)	.020 (.508)	.020 (.508)	.020 (.508)	.024 (.610)	.024 (.610)	.024 (.610)	.030 (.760)	.030 (.760)
P & AW	P & AW dimensions are dependent on the chips utilized in the array. Please contact the factory for a specification sheet that will meet your requirements.									

TOLERANCES +/- INCHES (MM)

LENGTH L	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.012 (.305)	.012 (.305)	.012 (.305)	.015 (.380)	.015 (.380)
HEIGHT H	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.015 (.380)	.015 (.380)	.015 (.380)
MB	.006 (.152)	.010 (.254)	.010 (.254)	.010 (.254)	.010 (.254)	.014 (.355)	.014 (.355)	.014 (.355)	.015 (.380)	.015 (.380)

Cap Arrays require drawings to specify length and width of array, and chip size used. Contact Novacap to specify your Cap-Rack requirement.



TYPICAL CONSTRUCTION

HOW TO ORDER

CR	1206	N	562	K	101	N	H	T	-4
STYLE Cap-Rack	SIZE Size of individual chips that make up the array 1206 = .120 x .060	DIELECTRIC N = COG B = X7R Y = Y5V	CAPACITANCE Value in Picofarads Two significant figures, followed by number of zeros: 562 = 5600 pF	TOLERANCE B = 0.10 pF C = 0.25 pF D = 0.50 pF F = +/- 1.0% G = +/- 2.0% H = +/- 3.0% J = +/- 5.0% K = +/- 10% M = +/- 20% Z = +80% -20% P = +100% -0%	VOLTAGE-VDCW Two significant figures, followed by number of zeros: 101 = 100V	TERMINATION N = Nickel Barrier (100% Tin) P = Palladium Silver Y = Nickel Barrier (90Tin/10Lead)	HI REL OPTION Ref: MIL-PRF-55681	PACKING OPTION T = Reeled W = Waffle Pack	NUMBER OF CHIPS