



# 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 and 1812, from pairs to as many as eight chips. See separate data sheets for capacitance ranges of the various sizes. 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.



## TYPICAL 4 UNIT ARRAYS

ARRAY SIZE	CR0603	CR1206
L	.060 (1.52)	.125 (3.18)
H	.030 (.760)	.060 (1.52)
MB	.014 (.355)	.020 (.508)
T	.035 (.889)	.035 (.899)
AW	.170 (4.32)	.170 (4.32)
P	.045 (1.14)	.045(1.14)

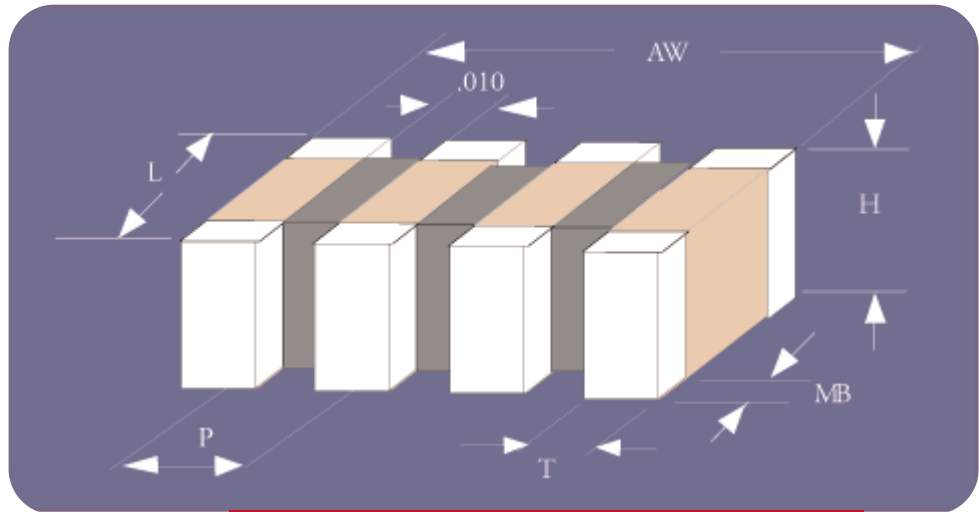
MAXIMUM CAPACITANCE PER CHIP *						
	COG	X7R	Y5V	COG	X7R	Y5V
16V	102	273	184	153	334	185
25V	821	183	124	123	274	155
50V	681	183	823	103	224	125
100V	331	103	333	562	124	334
250V	181	682	562	272	563	683
500V	•	•	•	102	273	•

VOLTAGE

\* Each value in the table above is a 3 digit code. The first 2 digits are the first 2 significant figures in the capacitor value. The last digit is a placeholder equal to the number of zeros to add to the cap value. Example 102 = 1000 picofarads



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



TYPICAL CONSTRUCTION

■ Dimensions "P" "T" and "AW" may be less than shown when thinner chips are utilized.



➔ HOW TO ORDER

CR	1206	N	562	K	101	N	H	T	- 4
<b>STYLE</b> Cap-Rack	<b>SIZE</b> Size of chips that make up the array 1206 = .120 x .060	<b>DIELECTRIC</b> N = COG B = X7R Y = Y5V	<b>CAPACITANCE</b> Value in Picofarads Two significant figures, followed by number of zeros: 562 = 5600 pF	<b>TOLERANCE</b> 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%	<b>VOLTAGE-VDCW</b> Two significant figures, followed by number of zeros: 101 = 100V	<b>TERMINATION</b> N = Nickel Barrier P = Ag-Pd	<b>HI REL OPTION</b> Ref: MIL-PRF-55681	<b>PACKING OPTION</b> T = Reeled	<b>NUMBER OF CHIPS</b>