

Capacitor Assemblies - 'Cap-Rack' Arrays

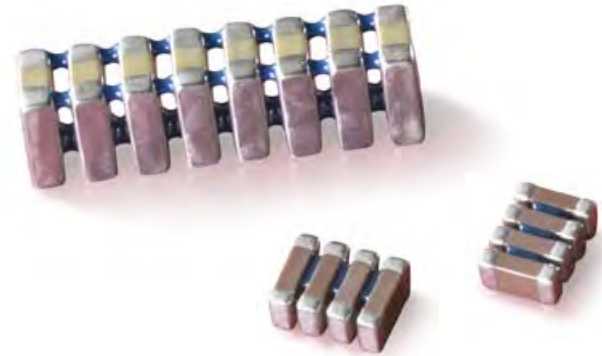
The Cap-Rack (US Patent 6,058,004) is an assembly of individual chip capacitors, bonded with high temperature epoxy. A Cap-Rack can be made up of a pair, to as many as eight same size chips - 0603, 0805, 1005, 1206, 1210, 1808, 1812, 1825, 2221 and 2225 - into one single component providing extended freedom for PCB space utilization. Footprint dimensions can also vary to further optimize board space usage. The patented design allows the chips to behave as individual components, not as a single large ceramic mass, and therefore reduces harmful thermal stress during assembly. Typical applications are in Multi-line designs, Mobile phones, Automotive, Computers, Network Devices and Medical products.

Electrical advantages include reduction in "cross talk", to insignificant levels, by elimination of capacitance coupling between adjacent capacitors; the ability to combine resistors and inductors within the Cap-Rack, as well as mixing and matching capacitance values and dielectrics.

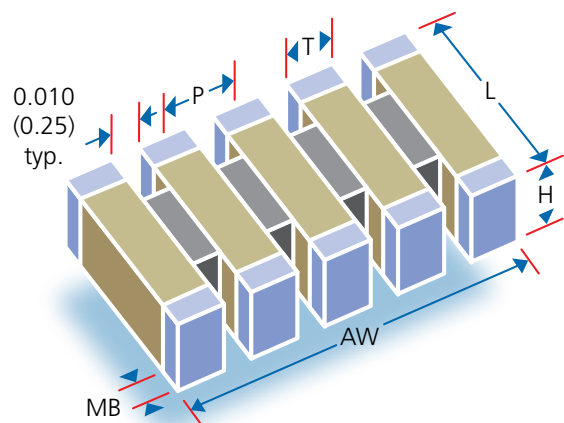
Mechanical advantages include reduced board area; easier to handle; reduced placement cost; reduces component stress and decreased cycle time. Cap-Rack can also be used with traditional pick and place equipment.

Consult the sales office for High Reliability versions and custom designs, particularly for high voltage applications.

- For dielectric characteristics see page 15.
- For dimensions of individual chips see page 12.
- P & AW dimensions are dependant on the chips utilized in the array.
- Cap Arrays require drawings to specify length and width of array and chip size used. Please contact the sales office.



Dimensions - inches/mm



Size	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
Max number 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 (COG, X7R, Y5V), High Voltage or High Reliability catalog pages.

How to Order - 'Cap-Rack' Arrays

CR	1206	N	562	K	101	N	H	T	- 4
STYLE	SIZE	DIELECTRIC	CAPACITANCE	TOLERANCE	VOLTAGE VDCW	TERMINATION	HI-REL OPTION	PACKING	No. of chips
Cap-Rack	Size of individual chips that make up the array	N = COG B = X7R Y = Y5V	Value in Picofarads. Two significant figures, followed by number of zeros: 562 = 5600pF	B = 0.10pF* C = 0.25pF* D = 0.50pF* F = ± 1.0%* G = ± 2.0%* H = ± 3.0%* J = ± 5% K = ± 10% M = ± 20% Z = +80% -20% P = +100% -0% *COG only	Two significant figures, followed by number of zeros: 101 = 100V	N = Nickel Barrier (100% tin) P = Palladium Silver Y = Nickel Barrier (90% tin/ 10% lead)	Ref: MIL-PRF-55681 & MIL-PRF-123	T = Tape & Reel W = Waffle Pack	