

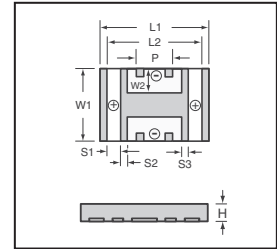
# nichicon Decoupling Capacitors for High Frequency



## Features:

- Higher Capacitance • Low ESR, High Ripple Current
- Resin-molded chip • Designed for surface mounting on high density PC boards • Load life of 1000 hours at 105°C

Case Code	Dimensions in mm								
	L1	L2	W1	W2	H	S1	S2	S3	P
D	8.5±0.2	7.3±0.2	5.3±0.2	1.3±0.3	2.0Max.	0.9±0.2	0.6±0.2	0.5±0.2	3.3±0.2
F	16.7±0.2	15.6±0.2	12.1±0.2	3.3±0.2	2.5Max.	1.5±0.1	1.3±0.1	1.5±0.2	7.0±0.2



† For Tape and Reel part number, change 1-ND to 2-ND.

## Solid Tantalum Electrolytic Chip Capacitors (SMT)



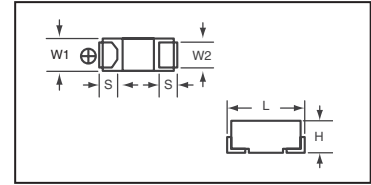
### Features:

- F93 – Standard Series** • General purpose rectangular resin molded chip • Low ESR/Impedance, excellent high frequency characteristics • Excellent humidity resistance
- F91 – Low ESR Series** • Rectangular resin molded chip • Low ESR
- F92 – Compact Series** • Low profile, rectangular resin molded chip • Excellent high frequency characteristics • Excellent humidity resistance
- F97 – High Reliability Series** • Rectangular resin molded chip • Soldering heat resistance • Superior humidity and environment resistance • High reliability

### Specification:

- Operating Temperature Range: -55°C – 125°C

Case Code	Dimensions in mm				
	L	W1	W2	H	S
A (F93 / 97) A (F92)	3.2±0.2 3.2±0.2	1.6±0.2 1.6±0.2	1.2±0.1 1.2±0.1	1.6±0.1 1.1±0.1	0.8±0.2 0.8±0.2
B	3.5±0.2	2.8±0.2	2.2±0.1	1.9±0.2	0.8±0.2
C	6.0±0.2	3.2±0.2	2.2±0.1	2.5±0.2	1.3±0.2
N	7.3±0.2	4.3±0.2	2.4±0.1	2.8±0.2	1.3±0.2
P	2.0±0.2	1.25±0.1	0.9±0.1	1.1±0.1	0.5±0.2



Rated Voltage	Cap. (µF)	Capacitance Tolerance	Case Size	Leakage Current (µA)	Dissipation Factor (% @120Hz)	E.S.R. (Ω @100kHz)	Digi-Key Part No.	Cut Tape Pricing		Digi-Key Part No.	Tape and Reel		Nichicon Part No.
								10	100		Qty.	Pricing	
<b>F93 – Standard Series</b>													
6.3	3.3	±20%	A	0.5	6	4.5	493-2346-1-ND	1.35	11.55	493-2346-2-ND	2,000	54.87/M	F930J335MAA
	4.7	±20%	A	0.5	6	4.0	493-2347-1-ND	1.39	11.89	493-2347-2-ND	2,000	56.49/M	F930J475MAA
	6.8	±20%	A	0.5	6	3.5	493-2349-1-ND	1.43	12.23	493-2349-2-ND	2,000	58.10/M	F930J685MAA
	10	±20%	A	0.6	6	3.0	493-2340-1-ND	1.36	11.61	493-2340-2-ND	2,000	55.15/M	F930J106MAA
	15	±20%	A	0.9	8	2.9	493-2341-1-ND	1.55	13.33	493-2341-2-ND	2,000	63.32/M	F930J156MAA
	15	±20%	B	0.9	6	2.0	493-2342-1-ND	1.45	12.46	493-2342-2-ND	2,000	59.53/M	F930J156MBA
	22	±20%	A	1.4	8	2.5	493-2343-1-ND	1.63	13.93	493-2343-2-ND	2,000	66.17/M	F930J226MAA
	22	±20%	A	1.4	6	1.9	493-2344-1-ND	1.87	15.97	493-2344-2-ND	2,000	71.86/M	F930J226MBA
	47	±20%	B	3.0	8	1.0	493-2348-1-ND	2.42	20.71	493-2348-2-ND	2,000	93.18/M	F930J476MBA
	68	±20%	C	4.3	8	0.8	493-2350-1-ND	3.92	33.61	493-2350-2-ND	500	95.23	F930J686MCC
220	±20%	N	13.9	10	0.5	493-2345-1-ND	7.25	62.10	493-2345-2-ND	500	165.60	F930J227MNC	
10	2.2	±20%	A	0.5	6	5.0	493-2356-1-ND	1.13	9.63	493-2356-2-ND	2,000	45.74/M	F931A225MAA
	3.3	±20%	A	0.5	6	4.5	493-2358-1-ND	1.35	11.55	493-2358-2-ND	2,000	54.87/M	F931A335MAA
	4.7	±20%	A	0.5	6	4.0	493-2361-1-ND	1.28	10.98	493-2361-2-ND	2,000	52.14/M	F931A475MAA
	10	±20%	A	1.0	6	3.0	493-2351-1-ND	1.22	10.45	493-2351-2-ND	2,000	49.66/M	F931A106MAA
	10	±20%	B	1.0	6	2.1	493-2352-1-ND	1.74	14.95	493-2352-2-ND	2,000	71.01/M	F931A106MBA
	15	±20%	B	1.5	6	2.0	493-2354-1-ND	1.55	13.31	493-2354-2-ND	2,000	63.16/M	F931A156MBA
	22	±20%	B	2.2	8	1.9	493-2357-1-ND	1.59	13.65	493-2357-2-ND	2,000	64.82/M	F931A226MBA
	33	±20%	B	3.3	8	1.4	493-2359-1-ND	2.53	21.72	493-2359-2-ND	2,000	97.74/M	F931A336MBA
	33	±20%	C	3.3	6	1.1	493-2360-1-ND	3.68	31.57	493-2360-2-ND	500	89.46	F931A336MCC
	47	±20%	C	4.7	8	0.9	493-2362-1-ND	3.92	33.61	493-2362-2-ND	500	95.23	F931A476MCC
16	6.8	±20%	N	6.8	6	0.6	493-2363-1-ND	4.78	41.88	493-2363-2-ND	500	135.66	F931A686MNC
	100	±20%	N	10.0	10	0.6	493-2363-1-ND	6.16	52.79	493-2363-2-ND	500	149.59	F931A107MNC
	150	±20%	N	15.0	10	0.6	493-2365-1-ND	7.34	62.94	493-2365-2-ND	500	167.83	F931A157MNC
	1.5	±20%	A	0.5	4	7.5	493-2364-1-ND	1.35	11.55	493-2364-2-ND	2,000	54.87/M	F931C105MAA
	1.5	±20%	A	0.5	6	6.0	493-2366-1-ND	1.35	11.54	493-2366-2-ND	2,000	54.83/M	F931C155MAA
	2.2	±20%	A	0.5	6	5.0	493-2368-1-ND	1.28	10.98	493-2368-2-ND	2,000	52.14/M	F931C225MAA
	3.3	±20%	A	0.5	6	4.5	493-2370-1-ND	1.28	10.98	493-2370-2-ND	2,000	52.14/M	F931C335MAA
	4.7	±20%	A	0.8	6	4.0	493-2372-1-ND	1.28	10.98	493-2372-2-ND	2,000	52.14/M	F931C475MAA
	6.8	±20%	A	1.1	6	3.5	493-2374-1-ND	1.47	12.57	493-2374-2-ND	2,000	59.72/M	F931C685MAA
	6.8	±20%	B	1.1	6	2.5	493-2375-1-ND	1.74	14.95	493-2375-2-ND	2,000	71.01/M	F931C685MBA
20	10	±20%	B	1.1	6	2.0	493-2365-1-ND	1.82	15.63	493-2365-2-ND	2,000	70.33/M	F931C106MBA
	15	±20%	B	2.4	8	2.0	493-2367-1-ND	1.98	16.99	493-2367-2-ND	2,000	76.45/M	F931C156MBA
	22	±20%	C	3.5	6	1.1	493-2369-1-ND	3.68	31.57	493-2369-2-ND	500	89.46	F931C226MCC
	33	±20%	N	7.5	8	1.1	493-2371-1-ND	3.92	33.61	493-2371-2-ND	500	95.23	F931C336MCC
	47	±20%	N	5.3	8	0.7	493-2373-1-ND	5.31	45.51	493-2373-2-ND	500	128.92	F931C476MCC
	68	±20%	N	10.9	8	0.6	493-2376-1-ND	6.26	53.66	493-2376-2-ND	500	152.03	F931C686MNC
	1.5	±20%	A	0.5	6	6.3	493-2378-1-ND	1.35	11.55	493-2378-2-ND	2,000	54.87/M	F931D155MAA
	2.2	±20%	A	0.5	6	5.0	493-2380-1-ND	1.07	9.15	493-2380-2-ND	2,000	43.56/M	F931D225MAA
	3.3	±20%	A	0.7	6	4.5	493-2382-1-ND	1.66	14.27	493-2382-2-ND	2,000	67.79/M	F931D335MAA
	4.7	±20%	A	0.9	6	4.0	493-2384-1-ND	2.08	17.82	493-2384-2-ND	2,000	80.21/M	F931D475MAA
25	4.7	±20%	B	0.9	6	2.8	493-2385-1-ND	2.11	18.03	493-2385-2-ND	2,000	81.15/M	F931D475MBA
	6.8	±20%	B	1.4	6	2.5	493-2386-1-ND	2.22	19.03	493-2386-2-ND	2,000	85.62/M	F931D685MBA
	10	±20%	B	2.0	6	2.1	493-2377-1-ND	2.91	24.93	493-2377-2-ND	2,000	112.21/M	F931D106MBA
	15	±20%	C	3.0	6	1.2	493-2379-1-ND	3.68	31.57	493-2379-2-ND	500	89.46	F931D156MCC
	22	±20%	C	4.4	8	1.1	493-2381-1-ND	3.92	33.61	493-2381-2-ND	500	95.23	F931D226MCC
	33	±20%	N	6.6	6	0.7	493-2383-1-ND	5.58	47.88	493-2383-2-ND	500	135.66	F931D336MNC
	.68	±20%	A	0.5	4	7.6	493-2394-1-ND	1.35	11.55	493-2394-2-ND	2,000	54.87/M	F931E684MAA
	1	±20%	A	0.5	4	7.5	493-2387-1-ND	1.35	11.55	493-2387-2-ND	2,000	54.87/M	F931E105MAA
	1.5	±20%	A	0.5	6	6.7	493-2389-1-ND	1.39	11.89	493-2389-2-ND	2,000	56.49/M	F931E155MAA
	2.2	±20%	A	0.6	6	6.3	493-2390-1-ND	1.47	12.57	493-2390-2-ND	2,000	59.72/M	F931E225MAA
3.3	±20%	B	0.8	6	3.1	493-2392-1-ND	1.85	15.86	493-2392-2-ND	2,000	71.15/M	F931E335MBA	
35	4.7	±20%	B	1.2	6	2.8	493-2393-1-ND	2.26	19.37	493-2393-2-ND	2,000	87.16/M	F931E475MBA
	6.8	±20%	C	1.7	6	1.8	493-2395-1-ND	2.84	24.33	493-2395-2-ND	500	72.96	F931E685MCC
	10	±20%	C	2.5	6	1.5	493-2388-1-ND	3.68	31.57	493-2388-2-ND	500	89.46	F931E106MCC
	22	±20%	N	5.5	6	0.7	493-2391-1-ND	5.47	46.86	493-2391-2-ND	500	132.78	F931E226MNC
	.47	±20%	A	0.5	4	10.0	493-2402-1-ND	1.13	9.63	493-2402-2-ND	2,000	45.74/M	F931V474MAA
	.68	±20%	A	0.5	4	7.6	493-2404-1-ND	1.35	11.55	493-2404-2-ND	2,000	54.87/M	F931V684MAA
	1	±20%	A	0.5	4	7.5	493-2396-1-ND	1.39	11.89	493-2396-2-ND	2,000	56.49/M	F931V105MAA
	1.5	±20%	A	0.5	6	7.5	493-2398-1-ND	1.07	9.15	493-2398-2-ND	2,000	43.56/M	F931V155MAA
	2.2	±20%	B	0.8	6	3.8	493-2400-1-ND	1.74	14.95	493-2400-2-ND	2,000	71.01/M	F931V225MBA
	3.3	±20%	B	1.2	6	3.5	493-2401-1-ND	2.33	19.97	493-2401-2-ND	2,000	89.66/M	F931V335MBA
4.7	±20%	C	1.6	6	1.8	493-2403-1-ND	3.48	29.87	493-2403-2-ND	500	84.64	F931V475MCC	
6.8	±20%	C	2.4	6	1.8	493-2405-1-ND	3.88	33.27	493-2405-2-ND	500	94.27	F931V685MCC	
10	±20%	C	3.5	6	1.6	493-2397-1-ND	5.79	49.58	493-2397-2-ND	500	140.47	F931V106MCC	
15	±20%	N	5.3	6	0.7	493-2399-1-ND	5.79	49.58	493-2399-2-ND	500	140.47	F931V156MNC	

(Continued)

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