NOVACAP MAGNETIC FREE COMMERCIAL X7R

NOVACAP manufactures surface mount capacitors that are completely magnetic free. These capacitors are designed to operate in magnetic free environments such as Magnetic Resonance Imaging (MRI) and Nuclear Magnetic Resonance (NMR) systems. Copper barrier terminations are available for soldering applications and palladium silver terminations for conductive epoxy. Please consult the factory for additional case sizes or custom designs.

X7R

CAPACITANCE & VOLTAGE SELECTION

3 digit code: two significant digits, followed by number of zeros eg: 473 = 47,000 pF

MAX CAP & VOLTAGE

SIZE	0402	0504	0603	0805	1206	1210	1808	1812	1825	2221	2225
Min Cap	121	121	121	121	121	121	151	151	471	471	471
Tmax	0.024	0.044	0.035	0.054	0.064	0.065	0.065	0.065	0.080	0.080	0.080
16V	562	393	273	124	334	474	684	125	185	155	225
25V	472	333	223	104	274	474	564	105	155	125	185
50V	472	333	223	104	274	474	394	824	155	125	185
100V	472	333	223	683	184	334	274	564	125	125	155
200V	222	153	103	333	104	184	184	334	824	684	105
250V	152	103	682	273	683	124	124	224	684	564	824
300V	•	•	•	153	473	823	823	154	474	394	474
400V	•	•	•	123	273	563	563	104	334	274	394
500V	•	•	•	103	223	563	563	104	334	274	334
600V	•	•	•	822	183	393	393	683	224	224	274
800V*	•	•	•	472	103	273	273	473	124	124	154
1000V*	•	•	•	272	682	153	153	273	823	823	104
1500V*	•	•	•	•	222	472	472	822	273	273	333
2000V*	•	•	•	•	102	222	272	472	123	123	153
3000V*	•	•	•	•	•	•	561	122	472	472	562
4000V*	•	•	•	•	•	•	331	681	152	152	152
5000V*	•	•	•	•	•	•	•	•	821	821	102

DIMENSION INCHES(MM)

SIZE	0402	0504	0603	0805	1206	1210	1808	1812	1825	2221	2225
LENGTH L	.040 (1.02)	.050 (1.27)	.060 (1.52)	.080 (2.03)	.125 (3.18)	.125 (3.18)	.180 (4.57)	.180 (4.57)	.180 (4.57)	.220 (5.59)	.220 (5.59)
WIDTH W	.020 (.508)	.040 (1.02)	.030 (.762)	.050 (1.27)	.060 (1.52)	.100 (2.54)	.080 (2.03)	.125 (3.18)	.250 (3.18)	.210 (5.33)	.250 (3.18)
T MAX	.024 (.610)	.044 (1.12)	.035 (.889)	.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	.010 (.254)	.014 (.356)	.014 (.356)	.020 (.508)	.020 (.508)	.020 (.508)	.024 (.610)	.024 (.610)	.024 (.610)	.030 (.762)	.030 (.762)

TOLERANCE +/- INCHES(MM)

LENGTH L	.004 (.102)	.006 (.152)	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.012 (.305)	.012 (.305)	.012 (.305)	.015 (.381)	.015 (.381)
WIDTH W	.004 (.102)	.006 (.152)	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.015 (.381)	.015 (.381)	.015 (.381)
MB	.006 (.152)	.006 (.152)	.006 (.152)	.010 (.254)	.010 (.254)	.010 (.254)	.014 (.356)	.014 (.356)	.014 (.356)	.015 (.381)	.015 (.381)

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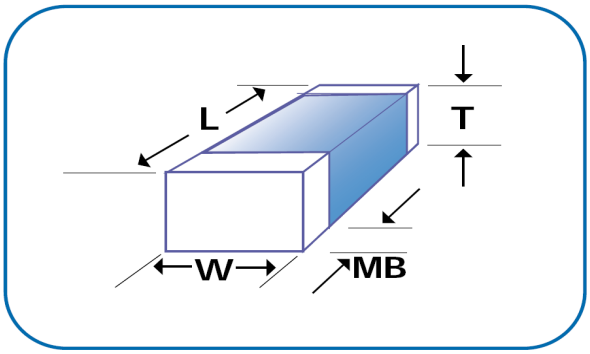

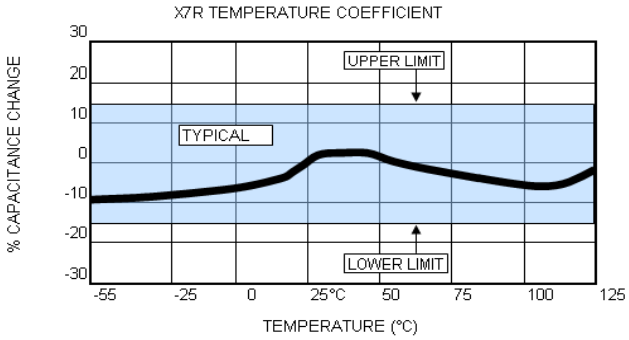

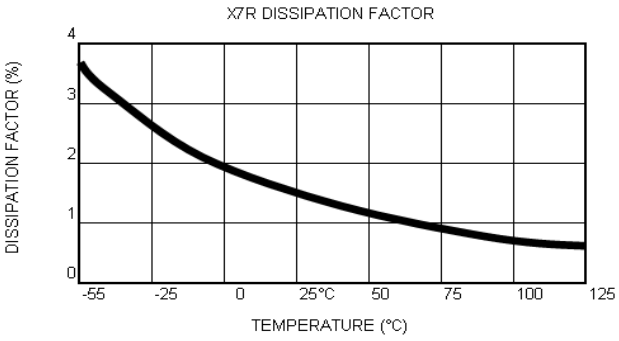

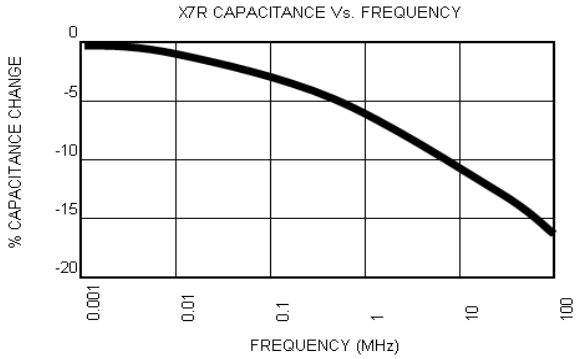

DIELECTRIC CHARACTERISTICS

Operating Temp Range	-55℃ to 125℃	Insulation Resist ance @ 25℃	>1000Ohm-Farad
Temp Coefficient	±15% Delta C Max	Insulation Resistance @ 125℃	>100Ohm-Farad
Dissipation Factor	.025 (2.5%) Max >25V rating	Dielectric Withstanding Voltage	≤200V, 250%
	.035 (3.5%) Max ≤25V rating		201-500V, 150%*
Aging Rate	<2.0% Per Decade	* or 500V, ** or 750V	>500V, 120%**
Test Parameters	1kHz, 1.0VRMS, 25℃	Whichever is grea ter	

HOW TO ORDER

1206	C	104	K	250	B	T
SIZE See Chart	**DIELECTRIC** C = X7R Magnetic Free	**CAPACITANCE** Value in Picofarads Two significant figures, followed by number of zeros: 104 = 100,000pF	**TOLERANCE** J = +/- 5 % K = +/- 10 % M= +/- 20 %	**VOLTAGE VDCW** Two significant figures, followed by number of zeros: 250 = 25V 101 = 100V 202 = 2000V	**TERMINATION** B = Copper Barrier (100% Tin) E = Copper Barrier (90% Tin/ 10% Lead) P = Palladium/Silver	**PACKING OPTION** T = Tape/Reel W = Waffle None = Bulk