



SMT-X7R DIELECTRIC



Stable EIA Class II dielectric, with +/-15% temperature coefficient and predictable variation of electrical properties with time, temperature and voltage. These chips are designed for surface mount application with nickel barrier terminations suitable for solder wave, vapor phase or reflow solder board attachment. Also available in silver-palladium terminations for hybrid use with conductive epoxy. Class II X7R chips are used as decoupling, by-pass, filtering and transient voltage suppression elements.



CAPACITANCE & VOLTAGE SELECTION FOR POPULAR CHIP SIZES

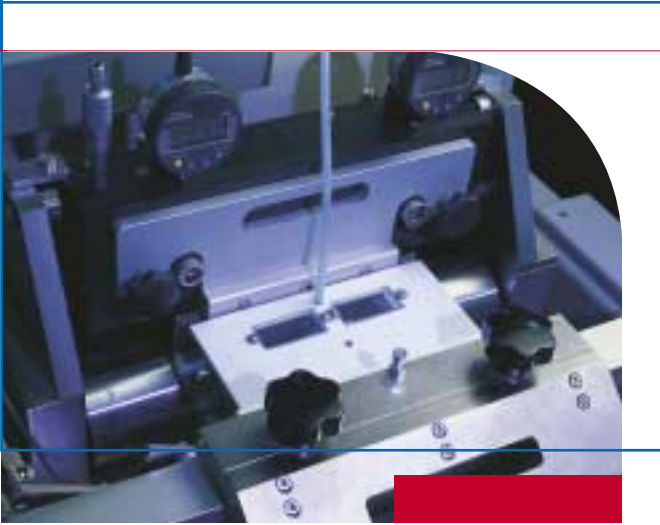
3 digit code: two significant digits, followed by number of zeros eg: 473 = 47,000 pF

SIZE	0402	0504	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
Min Cap	121	121	121	121	121	121	121	121	391	821	821	821
16V	682	393	273	124	184	334	684	824	125	185	185	225
25V	562	273	183	104	124	274	564	684	105	185	155	185
50V	562	273	183	104	124	224	474	564	824	155	155	185
100V	272	153	103	563	683	124	274	334	564	155	125	155
200V	182	103	682	333	473	823	184	224	334	105	824	105
250V	182	103	682	273	393	563	124	154	334	564	684	105
300V				223	333	563	124	124	224	564	564	684
400V				153	223	473	104	124	184	474	394	564
500V				103	153	273	563	563	104	274	274	334
600V				822	123	223	473	563	823	224	224	274
800V*				472	682	123	273	333	473	154	154	184
1000V*				272	472	682	153	183	273	823	104	124
1500V*						222	472	562	822	273	273	333
2000V*						102	222	272	392	153	153	183
3000V*								821	122	472	472	562
4000V*								391	561	222	222	272

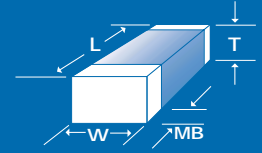
MAX CAP & VOLTAGE

*Units rated above 800V may require conformal coating in use to preclude arcing over the chip surface.

PRODUCT OFFERING



See chart for standard EIA case sizes and available capacitance and voltage ratings. Special sizes, thickness and other voltage ratings are available, see other NOVACAP product offerings. High reliability testing is available per MIL-PRF-55681, MIL-PRF-123, or to customer SCD. Please consult the factory with your requirements. NOVACAP has complete testing facilities at your disposal.



DIMENSIONS +/- INCHES (MM)

SIZE	0402	0504	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
LENGTH L	.040 (1.02)	.050 (1.27)	.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)
WIDTH W	.020 (.508)	.040 (1.02)	.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.	.024 (.610)	.044 (1.12)	.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	.010 (.254)	.014 (.355)	.014 (.355)	.020 (.508)	.020 (.508)	.020 (.508)	.020 (.508)	.024 (.610)	.024 (.610)	.024 (.610)	.030 (.760)	.030 (.760)

TOLERANCES +/- INCHES (MM)

LENGTH	.004 (.102)	.006 (.152)	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.012 (.305)	.012 (.305)	.012 (.305)	.015 (.380)	.015 (.380)
WIDTH	.004 (.102)	.006 (.152)	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.015 (.380)	.015 (.380)	.015 (.380)
MB	.006 (.152)	.006 (.152)	.006 (.152)	.010 (.254)	.010 (.254)	.010 (.254)	.010 (.254)	.014 (.355)	.014 (.355)	.014 (.355)	.015 (.380)	.015 (.380)

HOW TO ORDER

1206	B	104	J	250	N	X	T	M
SIZE See Chart	DIELECTRIC B = X7R	CAPACITANCE Value in Picofarads Two significant figures, followed by number of zeros: 104 = 100,000pF	TOLERANCE J = +/- 5.0% K = +/- 10 % M = +/- 20 % Z = +80%-20% P = +100%-0%	VOLTAGE-VDCW Two significant figures, followed by number of zeros: 250 = 25V	TERMINATION N = Nickel Barrier P = Ag-Pd	THICKNESS OPTION X = Non standard thickness. Specify in Mils if Non EIA thickness is required.	PACKING OPTION T = Reeled	MARKING OPTION M = Marked (See Marking Specifications)