

ELECTRON PRODUCTS INC.

METALLIZED POLYPROPYLENE CAPACITORS

SERIES

N

ENGINEERING DATA SHEET

ENVIRONMENTAL DATA

APPLICATIONS

The N series Metallized Polypropylene capacitors are ideally suited for applications requiring low Dissipation Factor, high Insulation Resistance combined with a very low Dielectric Absorption and a low Temperature coefficient. All series N capacitors are dry-section, non-polar, non-inductive self-healing designs. For low ESR, high-frequency, high-current applications, please see our V series data sheets and for high DV/DT requirements refer to the Y series engineering data sheet.

Series N capacitors are available in several case styles; Oval, Wrap and Fill (N style), Round, Wrap and Fill (NC style), Axial Leaded Epoxy Case (NE style), Radial Leaded Epoxy Case (N2E style) and both Round and Rectangular Hermetically Sealed Tubes (NL and NG styles).

Contact our Engineering Department for special sizes, configurations, capacitance values and AC applications with Anti-Corona construction at all frequencies. All N series capacitors are available in a variety of metal and plastic enclosures. To help facilitate the high performance characteristics of the N series capacitors, we offer several lead configurations (i.e. screw mount tabs, tinned copper ribbon, braided and insulated leads), for non-magnetic applications, tin coated copper leads can be supplied.

OPERATING TEMPERATURE

Range: -55°C to +105°C without voltage de-rating.

LIFE TEST

Series N capacitors shall be capable of withstanding a test of 1000 hours at 105°C and 100% of the DC rated voltage or a test of 250 hours at 105°C and 140% of the DC voltage. The voltage shall be applied to each capacitor through its individual current-limiting resistor as determined from the formula $R = 0.025/C$ where C is the nominal capacitance in farads and R is in ohms. The test procedures shall be in accordance with MIL-PRF-55514 except as noted herein. Not more than one failure in twelve shall be permitted. Any one of the following shall be considered a failure.

- a. A change in capacitance of more than 10% from its initial value.
- b. An increase in Dissipation Factor to a value greater than 150% of the accepted limit.

c. A decrease in Insulation Resistance to a value less than 30% of the acceptance limit for 25°C

d. A permanent short or open.

TERMINAL STRENGTH

Series N capacitors utilize tin-plated, copper-clad steel wire terminals, which shall be capable of withstanding the following test without mechanical damage to the capacitor or terminals.

a. **PULL TEST** The capacitor shall withstand a steady pull of 5 pounds axially to the leads for one minute.

b. **BEND TEST** The wire lead terminals shall be bent at a point of ¼ inch from the body of the capacitor, first 90 degrees in one direction, then back to the original position, and then 90 degrees in the opposite direction.

VIBRATION

Series N capacitors shall be capable of withstanding a vibration test in accordance with MIL-STD-202, Method 201. The following details and exception shall apply:

Mounting: The capacitor body shall be rigidly mounted by the entire length to the vibration test fixture. The leads shall be soldered to rigidly supported terminals and so spaced that the length of each lead from the capacitor is $1.2 \pm 1/8$ inch from the edge of the supporting terminal.

Measurement during Test: During the last cycle in each direction, an electrical measurement shall be made to detect intermittent contact (not to be confused with "self healing" clearings) or open or short-circuiting.

Examination after Testing: Capacitors shall be visually examined for mechanical damage.

MOISTURE RESISTANCE

Series N capacitor Styles NG and NL (hermetically sealed in metal containers) shall be capable of withstanding the moisture resistance, humidity, and temperature and immersion cycling per MIL-PRF-19978. Styles NE and N2E (epoxy encased) and styles N and NC (wrap and fill) capacitors are not intended for exposure to high humidity conditions over extended periods of time.

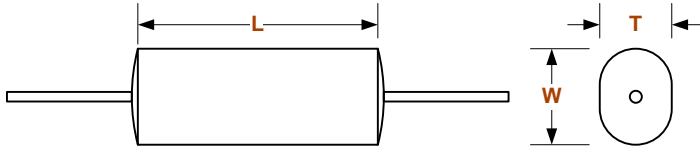
METALLIZED POLYPROPYLENE OVAL, WRAP and FILL AXIAL LEAD CAPACITORS

N

METALLIZED POLYPROPYLENE
OVAL, WRAP and FILL
REGULAR SERIES

DIMENSIONS See tables for specific T, W, L values
For Maximum T, W and L add .05"

WIRE SIZE (Length 1.50 in. minimum)



BODY LENGTH (L)	WIRE SIZE	
	AWG No.	Diameter
≤ .65"	24	.020"
> .65" ≤ 1.00"	22	.025"
> 1.00"	20	.032"

ORDERING DESCRIPTION

Capacitor, Fixed: Metallized Polypropylene dielectric, extended foil construction, tin-plated copper clad steel wire axial leads, encased in a skin tight plastic wrap with epoxy end fill.

APPLICATION NOTES

Wrap and Fill capacitors are not intended for exposure to high humidity conditions over extended periods of time. For stringent environmental conditions, Wrap and Fill capacitors should be used in encapsulated or hermetically sealed circuitry.

All designs utilize materials that meet or exceed UL flammability requirements per UL94V0.

SELECTION AND ORDERING TABLE Select voltage rating, capacitance and tolerance, read Part Number to the right.

MFD	100VDC 80VAC				200VDC 120VAC				400VDC 160VAC				600VDC 230VAC					
	RATING		T	W	L	PART #	T	W	L	PART #	T	W	L	PART #	T	W	L	PART #
			+ .05"	+ .05"	± .05"		+ .05"	+ .05"	± .05"		+ .05"	+ .05"	± .05"		+ .05"	+ .05"	± .05"	
.0010	.09	.18	.40	N1-102E	.09	.18	.40	N2-102E	.09	.18	.40	N4-102E	.09	.18	.40	N6-102E		
.0015	.09	.18	.40	N1-152E	.09	.18	.40	N2-152E	.09	.18	.40	N4-152E	.09	.18	.40	N6-152E		
.0022	.09	.18	.40	N1-222E	.09	.18	.40	N2-222E	.09	.18	.40	N4-222E	.09	.18	.40	N6-222E		
.0033	.09	.18	.40	N1-332E	.09	.18	.40	N2-332E	.09	.18	.40	N4-332E	.14	.23	.40	N6-332E		
.0047	.09	.18	.40	N1-472E	.09	.18	.40	N2-472E	.09	.18	.40	N4-472E	.15	.24	.40	N6-472E		
.0068	.09	.18	.40	N1-682E	.09	.18	.40	N2-682E	.09	.18	.40	N4-682E	.13	.22	.53	N6-682E		
.0082	.09	.18	.40	N1-822E	.09	.18	.40	N2-822E	.09	.18	.53	N4-822E	.14	.23	.53	N6-822E		
.010	.09	.18	.40	N1-103E	.09	.18	.40	N2-103E	.09	.18	.53	N4-103E	.15	.24	.53	N6-103E		
.015	.09	.18	.40	N1-153E	.09	.18	.53	N2-153E	.09	.18	.53	N4-153E	.19	.29	.53	N6-153E		
.022	.09	.18	.40	N1-223E	.09	.18	.53	N2-223E	.012	.21	.53	N4-223E	.15	.24	.69	N6-223E		
.033	.09	.18	.53	N1-333E	.12	.21	.53	N2-333E	.16	.26	.53	N4-333E	.23	.33	.69	N6-333E		
.047	.09	.18	.53	N1-473E	.15	.24	.53	N2-473E	.20	.30	.53	N4-473E	.28	.38	.69	N6-473E		
.068	.10	.20	.53	N1-683E	.18	.28	.53	N2-683E	.25	.35	.53	N4-683E	.26	.35	.95	N6-683E		
.082	.12	.21	.53	N1-823E	.20	.30	.53	N2-823E	.22	.31	.67	N4-823E	.28	.38	.95	N6-823E		
.10	.14	.23	.53	N1-104E	.23	.32	.53	N2-104E	.24	.34	.67	N4-104E	.31	.41	.95	N6-104E		
.15	.18	.27	.53	N1-154E	.22	.32	.65	N2-154E	.31	.40	.67	N4-154E	.38	.48	.95	N6-154E		
.22	.22	.32	.53	N1-224E	.23	.33	.78	N2-224E	.34	.43	.78	N4-224E	.40	.49	1.21	N6-224E		
.33	.22	.32	.67	N1-334E	.30	.39	.78	N2-334E	.42	.52	.78	N4-334E	.49	.59	1.21	N6-334E		
.47	.23	.33	.78	N1-474E	.32	.41	.90	N2-474E	.32	.48	1.17	N4-474E	.60	.69	1.21	N6-474E		
.68	.29	.38	.78	N1-684E	.29	.45	1.17	N2-684E	.39	.57	1.17	N4-684E	.52	.64	1.72	N6-684E		
.82	.32	.42	.78	N1-824E	.32	.49	1.17	N2-824E	.45	.61	1.17	N4-824E	.58	.75	1.72	N6-824E		
1.0	.21	.38	1.17	N1-105E	.36	.53	1.17	N2-105E	.43	.60	1.45	N4-105E	.63	.79	1.72	N6-105E		
1.5	.32	.45	1.17	N1-155E	.42	.60	1.45	N2-155E	.47	.62	1.68	N4-155E	.68	.92	1.72	N6-155E		
2.0	.33	.50	1.17	N1-205E	.47	.64	1.45	N2-205E	.57	.74	1.68	N4-205E	.90	1.06	1.72	N6-205E		
3.3	.38	.56	1.68	N1-335E	.53	.70	1.90	N2-335E	.66	.90	1.90	N4-335E						
4.7	.42	.58	1.68	N1-475E	.62	.79	1.90	N2-475E	.85	1.02	1.90	N4-475E						
5.0	.44	.60	1.68	N1-505E	.64	.81	1.90	N2-505E	.87	1.04	1.90	N4-505E						
10.0	.59	.76	1.90	N1-106E	.94	1.11	1.90	N2-106E	1.27	1.44	1.90	N4-106E						
15.0	.75	.91	1.90	N1-156E	1.20	1.39	1.90	N2-156E	1.40	1.70	2.20	N4-156E						
20.0	.88	1.05	1.90	N1-206E	1.37	1.54	1.90	N2-206E	1.74	1.91	2.20	N4-206E						

Note: Replace the last digit E with the desired tolerance code from the Tolerance Table below. For in-between capacitance values, use the next larger value's dimensions. Please consult factory for additional voltage ratings and special or custom requirements.

TOLERANCE TABLE	A = ± 1% ●, B = ± 2% ●, C = ± 3% ●, D = ± 5%, E = ± 10%, None = ± 20% ● Temperature Stabilized
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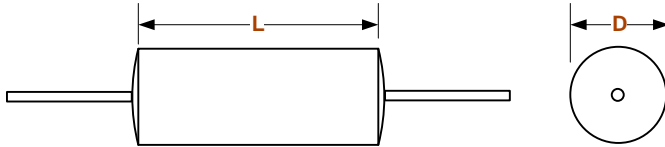
METALLIZED POLYPROPYLENE ROUND, WRAP and FILL AXIAL LEAD CAPACITORS

NC

METALLIZED POLYPROPYLENE
ROUND, WRAP and FILL
REGULAR SERIES

DIMENSIONS See tables for specific T, W, L values
For Maximum D and L add .05"

WIRE SIZE (Length 1.50 in. minimum)



BODY LENGTH (L)	WIRE SIZE	
	AWG No.	Diameter
≤ .65"	24	.020"
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APPLICATION NOTES

Wrap and Fill capacitors are not intended for exposure to high humidity conditions over extended periods of time. For stringent environmental conditions, Wrap and Fill capacitors should be used in encapsulated or hermetically sealed circuitry.

All designs utilize materials that meet or exceed UL flammability requirements per UL94VO.

SELECTION AND ORDERING TABLE Select voltage rating, capacitance and tolerance, read Part Number to the right.

MFD	100VDC 80VAC			200VDC 120VAC			400VDC 160VAC			600VDC 230VAC		
	RATING	DIA.	L	PART #	DIA.	L	PART #	DIA.	L	PART #	DIA.	L
	+ .05"	± .05"		+ .05"	± .05"		+ .05"	± .05"		+ .05"	± .05"	
.0010	.15	.40	NC1-102E	.15	.40	NC2-102E	.15	.40	NC4-102E	.15	.40	NC6-102E
.0015	.15	.40	NC1-152E	.15	.40	NC2-152E	.15	.40	NC4-152E	.15	.40	NC6-152E
.0022	.15	.40	NC1-222E	.15	.40	NC2-222E	.15	.40	NC4-222E	.15	.40	NC6-222E
.0033	.15	.40	NC1-332E	.15	.40	NC2-332E	.15	.40	NC4-332E	.15	.40	NC6-332E
.0047	.15	.40	NC1-472E	.15	.40	NC2-472E	.15	.40	NC4-472E	.15	.40	NC6-472E
.0068	.15	.40	NC1-682E	.15	.40	NC2-682E	.15	.40	NC4-682E	.19	.53	NC6-682E
.0082	.15	.40	NC1-822E	.15	.40	NC2-822E	.15	.53	NC4-822E	.20	.53	NC6-822E
.010	.15	.40	NC1-103E	.15	.40	NC2-103E	.15	.53	NC4-103E	.21	.53	NC6-103E
.015	.15	.40	NC1-153E	.15	.53	NC2-153E	.15	.53	NC4-153E	.23	.53	NC6-153E
.022	.15	.40	NC1-223E	.15	.53	NC2-223E	.18	.53	NC4-223E	.25	.69	NC6-223E
.033	.15	.53	NC1-333E	.18	.53	NC2-333E	.22	.53	NC4-333E	.29	.69	NC6-333E
.047	.15	.53	NC1-473E	.21	.53	NC2-473E	.26	.53	NC4-473E	.34	.69	NC6-473E
.068	.16	.53	NC1-683E	.24	.53	NC2-683E	.31	.53	NC4-683E	.32	.97	NC6-683E
.082	.18	.53	NC1-823E	.26	.53	NC2-823E	.28	.67	NC4-823E	.34	.97	NC6-823E
.10	.20	.53	NC1-104E	.29	.53	NC2-104E	.30	.67	NC4-104E	.37	.97	NC6-104E
.15	.24	.53	NC1-154E	.28	.67	NC2-154E	.37	.67	NC4-154E	.45	.97	NC6-154E
.22	.28	.53	NC1-224E	.29	.78	NC2-224E	.39	.78	NC4-224E	.46	1.21	NC6-224E
.33	.28	.67	NC1-334E	.36	.78	NC2-334E	.48	.78	NC4-334E	.55	1.21	NC6-334E
.47	.29	.78	NC1-474E	.38	.90	NC2-474E	.43	1.17	NC4-474E	.65	1.21	NC6-474E
.68	.35	.78	NC1-684E	.39	1.17	NC2-684E	.49	1.17	NC4-684E	.63	1.71	NC6-684E
.82	.38	.78	NC1-824E	.43	1.17	NC2-824E	.55	1.17	NC4-824E	.69	1.71	NC6-824E
1.0	.31	1.17	NC1-105E	.47	1.17	NC2-105E	.54	1.40	NC4-105E	.75	1.71	NC6-105E
1.5	.39	1.17	NC1-155E	.53	1.40	NC2-155E	.62	1.68	NC4-155E	.85	1.96	NC6-155E
2.0	.43	1.17	NC1-205E	.57	1.40	NC2-205E	.68	1.68	NC4-205E	.96	1.96	NC6-205E
3.3	.48	1.68	NC1-335E	.65	1.90	NC2-335E	.87	1.90	NC4-335E	1.06	2.71	NC6-335E
4.7	.53	1.68	NC1-475E	.72	1.90	NC2-475E	1.02	1.90	NC4-475E	1.21	2.71	NC6-475E
5.0	.55	1.68	NC1-505E	.74	1.90	NC2-505E	1.10	1.90	NC4-505E	1.24	2.71	NC6-505E
10.0	.70	1.90	NC1-106E	1.05	1.90	NC2-106E	1.38	1.90	NC4-106E			
15.0	.86	1.90	NC1-156E	1.31	1.90	NC2-156E						
20.0	.99	1.90	NC1-206E	1.48	1.90	NC2-206E						

Note: Replace the last digit E with the desired tolerance code from the Tolerance Table below. For in-between capacitance values, use the next larger value's dimensions. Please consult factory for additional voltage ratings and special or custom requirements.

TOLERANCE TABLE	A = ± 1% ●, B = ± 2% ●, C = ± 3% ●, D = ± 5%, E = ± 10%, None = ± 20%
	● Temperature Stabilized

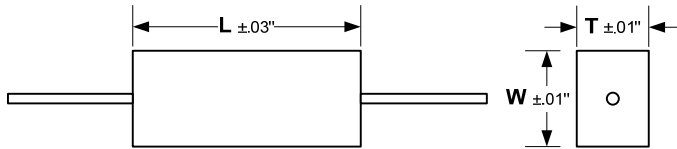
METALLIZED POLYPROPYLENE EPOXY CASE, RECTANGULAR AXIAL LEAD CAPACITORS

NE

METALLIZED POLYPROPYLENE
EPOXY CASE, RECTANGULAR
AXIAL LEAD
REGULAR SERIES

DIMENSIONS See tables for specific T, W, L values

WIRE SIZE (Length 1.50 in. minimum)



BODY LENGTH (L)	WIRE SIZE	
	AWG No.	Diameter
≤ .65"	24	.020"
> .65" ≤ 1.06"	22	.025"
> 1.06"	20	.032"

ORDERING DESCRIPTION

Capacitor, Fixed: Metallized Polypropylene dielectric, extended foil construction, tin-plated copper clad steel wire axial leads, encased in a flame retardant epoxy / plastic shell with epoxy fill.

APPLICATION NOTES

Epoxy case capacitors are not intended for exposure to high humidity conditions over extended periods of time. For stringent environmental conditions, Epoxy Case capacitors should be used in encapsulated or hermetically sealed circuitry.

All designs utilize materials that meet or exceed UL flammability requirements per UL94VO.

SELECTION AND ORDERING TABLE Select voltage rating, capacitance and tolerance, read Part Number to the right.

MFD	100VDC 80VAC				200VDC 120VAC				400VDC 320VAC			
	T	W	L	PART #	T	W	L	PART #	T	W	L	PART #
.0010	.17	.29	.42	NE1-102E	.17	.29	.42	NE2-102E	.17	.29	.42	NE4-102E
.0015	.17	.29	.42	NE1-152E	.17	.29	.42	NE2-152E	.17	.29	.42	NE4-152E
.0022	.17	.29	.42	NE1-222E	.17	.29	.42	NE2-222E	.17	.29	.42	NE4-222E
.0033	.17	.29	.42	NE1-332E	.17	.29	.42	NE2-332E	.17	.29	.42	NE4-332E
.0047	.17	.29	.42	NE1-472E	.17	.29	.42	NE2-472E	.17	.29	.42	NE4-472E
.0068	.17	.29	.42	NE1-682E	.17	.29	.42	NE2-682E	.17	.29	.42	NE4-682E
.0082	.17	.29	.42	NE1-822E	.17	.29	.42	NE2-822E	.17	.29	.55	NE4-822E
.010	.17	.29	.42	NE1-103E	.17	.29	.42	NE2-103E	.17	.29	.55	NE4-103E
.015	.17	.29	.42	NE1-153E	.17	.29	.55	NE2-153E	.23	.36	.55	NE4-153E
.022	.17	.29	.42	NE1-223E	.17	.29	.55	NE2-223E	.23	.36	.55	NE4-223E
.033	.17	.29	.55	NE1-333E	.17	.29	.55	NE2-333E	.29	.42	.55	NE4-333E
.047	.17	.29	.55	NE1-473E	.23	.36	.55	NE2-473E	.29	.42	.67	NE4-473E
.068	.17	.29	.55	NE1-683E	.23	.36	.55	NE2-683E	.29	.42	.67	NE4-683E
.082	.17	.29	.55	NE1-823E	.29	.42	.55	NE2-823E	.29	.42	.82	NE4-823E
.10	.23	.36	.55	NE1-104E	.29	.42	.55	NE2-104E	.39	.54	.82	NE4-104E
.15	.23	.36	.55	NE1-154E	.29	.42	.67	NE2-154E	.39	.54	.82	NE4-154E
.22	.29	.42	.55	NE1-224E	.29	.42	.82	NE2-224E	.39	.54	1.04	NE4-224E
.33	.29	.42	.67	NE1-334E	.39	.54	.82	NE2-334E	.39	.54	1.24	NE4-334E
.47	.29	.42	.82	NE1-474E	.39	.54	1.04	NE2-474E	.56	.72	1.24	NE4-474E
.68	.39	.54	.82	NE1-684E	.39	.54	1.24	NE2-684E	.56	.72	1.24	NE4-684E
.82	.39	.54	.82	NE1-824E	.39	.54	1.24	NE2-824E	.56	.72	1.75	NE4-824E
1.0	.39	.54	1.24	NE1-105E	.56	.72	1.24	NE2-105E	.56	.72	1.75	NE4-105E
2.0	.56	.72	1.24	NE1-205E	.56	.72	1.75	NE2-205E				
4.7	.56	.72	1.75	NE1-475E								
5.0	.56	.72	1.75	NE1-505E								

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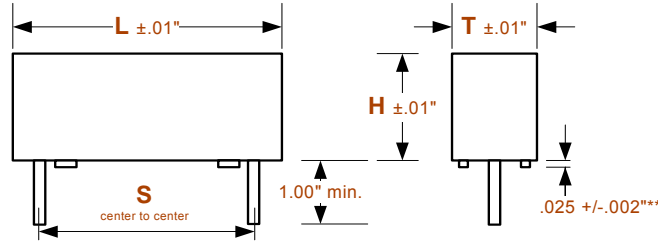
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	● Temperature Stabilized

METALLIZED POLYPROPYLENE EPOXY CASE, RECTANGULAR RADIAL LEAD CAPACITORS

N2E

METALLIZED POLYPROPYLENE
EPOXY CASE, RECTANGULAR
RADIAL LEAD
REGULAR SERIES

DIMENSIONS See tables for specific T, H, L values



** Mounting pads consist of two individual pads on each end or one continuous pad on each end, depending on the mold. (Not an option)

WIRE SIZE (Length 1.50 in. minimum)

BODY LENGTH (L)	LEAD SPACING(C) C to C ±.01"	WIRE SIZE	
		AWG No.	Diameter
.42	.300"	22	.025"
.55	.400"	22	.025"
.67	.500"	22	.025"
.82	.600"	22	.025"
1.04	.800"	22	.025"
1.24	1.100"	20	.032"
1.75	1.60"	20	.032"

ORDERING DESCRIPTION

Capacitor, Fixed: Metallized Polypropylene dielectric, extended foil construction, tin-plated copper clad steel wire axial leads, encased in a flame retardant epoxy / plastic shell with epoxy fill.

APPLICATION NOTES

Epoxy case capacitors are not intended for exposure to high humidity conditions over extended periods of time. For stringent environmental conditions, Epoxy Case capacitors should be used in encapsulated or hermetically sealed circuitry.

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	+.01"	+.01"	±.03"		+.01"	+.01"	±.03"		+.01"	+.01"	±.03"	
.0010	.18	.30	.42	N2E1-102E	.18	.30	.42	N2E2-102E	.18	.30	.42	N2E4-102E
.0015	.18	.30	.42	N2E1-152E	.18	.30	.42	N2E2-152E	.18	.30	.42	N2E4-152E
.0022	.18	.30	.42	N2E1-222E	.18	.30	.42	N2E2-222E	.18	.30	.42	N2E4-222E
.0033	.18	.30	.42	N2E1-332E	.18	.30	.42	N2E2-332E	.18	.30	.42	N2E4-332E
.0047	.18	.30	.42	N2E1-472E	.18	.30	.42	N2E2-472E	.18	.30	.42	N2E4-472E
.0068	.18	.30	.42	N2E1-682E	.18	.30	.42	N2E2-682E	.18	.30	.42	N2E4-682E
.0082	.18	.30	.42	N2E1-822E	.18	.30	.42	N2E2-822E	.18	.30	.55	N2E4-822E
.010	.18	.30	.42	N2E1-103E	.18	.30	.42	N2E2-103E	.18	.30	.55	N2E4-103E
.015	.18	.30	.42	N2E1-153E	.18	.30	.55	N2E2-153E	.24	.37	.55	N2E4-153E
.022	.18	.30	.42	N2E1-223E	.18	.30	.55	N2E2-223E	.24	.37	.55	N2E4-223E
.033	.18	.30	.55	N2E1-333E	.18	.30	.55	N2E2-333E	.30	.43	.55	N2E4-333E
.047	.18	.30	.55	N2E1-473E	.24	.37	.55	N2E2-473E	.30	.43	.67	N2E4-473E
.068	.18	.30	.55	N2E1-683E	.24	.37	.55	N2E2-683E	.30	.43	.67	N2E4-683E
.082	.18	.30	.55	N2E1-823E	.30	.43	.55	N2E2-823E	.30	.43	.82	N2E4-823E
.10	.24	.37	.55	N2E1-104E	.30	.43	.55	N2E2-104E	.40	.55	.82	N2E4-104E
.15	.24	.37	.55	N2E1-154E	.30	.43	.67	N2E2-154E	.40	.55	.82	N2E4-154E
.22	.30	.43	.55	N2E1-224E	.30	.43	.82	N2E2-224E	.40	.55	1.04	N2E4-224E
.33	.30	.43	.67	N2E1-334E	.40	.55	.82	N2E2-334E	.40	.55	1.24	N2E4-334E
.47	.30	.43	.82	N2E1-474E	.40	.55	1.04	N2E2-474E	.57	.73	1.24	N2E4-474E
.68	.40	.55	.82	N2E1-684E	.40	.55	1.24	N2E2-684E	.57	.73	1.24	N2E4-684E
.82	.40	.55	.82	N2E1-824E	.40	.55	1.24	N2E2-824E	.57	.73	1.75	N2E4-824E
1.0	.40	.55	1.24	N2E1-105E	.57	.73	1.24	N2E2-105E	.57	.73	1.75	N2E4-105E
2.0	.57	.73	1.24	N2E1-205E	.57	.73	1.75	N2E2-205E	.70	1.13	1.75	N2E4-205E
4.7	.57	.73	1.75	N2E1-475E								
5.0	.57	.73	1.75	N2E1-505E								

Note: Replace the last digit E with the desired tolerance code from the Tolerance Table below. For in-between capacitance values, use the next larger value's dimensions. Please consult factory for additional voltage ratings and special or custom requirements.

TOLERANCE TABLE	A = ± 1% ●, B = ± 2% ●, C = ± 3% ●, D = ± 5%, E = ± 10%, None = ± 20%
	● Temperature Stabilized

METALLIZED POLYPROPYLENE CAPACITORS PARAMETRIC TREND CURVES AND ACCEPTANCE CRITERIA

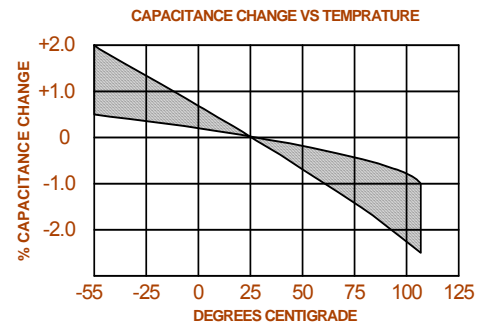
N
SERIES

CAPACITANCE

Reference MIL-STD-202 Method 305:
Test Frequency: 1000Hz
Temperature: +25°C

Capacitance Change -vs -Temperature
Acceptance Limits:

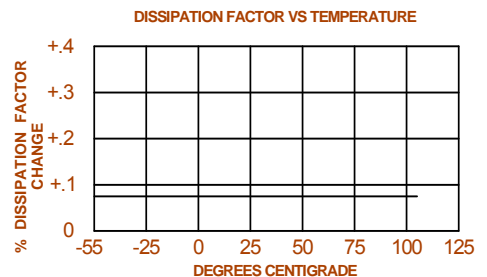
- @ -55°C = +2% Maximum Change
- @ +25°C = ±0.10% Maximum Change
- @ +105°C = -2.5% Maximum Change



DISSIPATION FACTOR

Reference MIL-STD-202 Method 306:
Test Frequency: 1000Hz
Temperature: +25°C

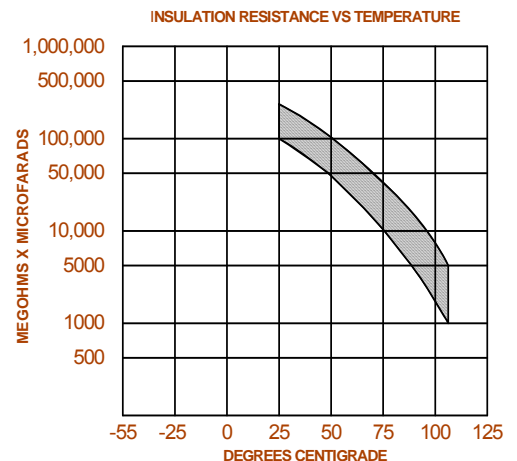
Acceptance Limit: .10% Maximum



INSULATION RESISTANCE

Reference MIL-STD-202 Method 302:
Electrification shall be at rated voltage or 500VDC, whichever is less and for a time not greater than 2 minutes.

Test Temperature	Megohms X μ f Minimum	Megohms Need not exceed
@ +25°C	100,000	200,000
@ +85°C	5,000	20,000
@ +105°C	1,000	5,000



DIELECTRIC ABSORPTION

Reference MIL-PRF-19978F
Acceptance Limit: .03%

VOLTAGE RATING

100% of listed voltage rating from -55°C to +105°C

VOLTAGE TEST

Reference MIL-STD-202 Method 301: Surge current is limited to 1 ampere maximum. Voltage applied for 1 minute (maximum) @ 25°C. Ground test is performed terminal to case (where the case is not a terminal) at 200% of the DC voltage rating. Dielectric strength test is performed terminal to terminal at 150% of the DC voltage rating.