S&EI Manufacturing/Capacitors
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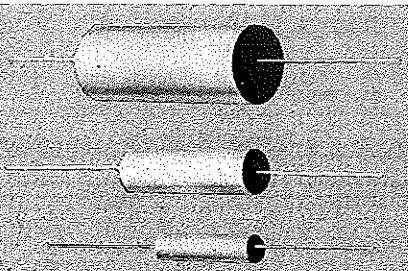


22 R SERIES

METALLIZED POLYCARBONATE CAPACITORS

Round Wrap-and-Fill Style

The metalized polycarbonate film dielectric capacitors offer a very flat capacitance change over a wide temperature range, similar to polystyrene, and the miniature size advantages of metallized Polyester.

This stability, coupled with the small size, is ideally suited for discriminator band pass filter networks and applications requiring low losses at high frequencies.

The 22R is designed round to insure the best possible long term stability retrace characteristics in a polyester tape wrap epoxy end fill encasement.

Our test and evaluation concludes wrap and fill round configuration is better than oval when exceeding + 105C, and applications that will not allow proper potting or encapsulating.

All the 22R series are constructed of thin film extended, foil encased, in thermosetting polyester tape wrap with epoxy end seals and copperweld tin plated leads.

Other types of leads, configurations, encasements, capacitance values, and voltages are available upon request.

ELECTRICAL CHARACTERISTICS

Insulation Resistance: Measured at rated voltage for 2 minutes electrification, the insulation resistance will equal or exceed the following values:

Temp.	Meg. X Mfd.	Need Not Exceed
25°C	100,000	200,000 Megohm
85°C	10,000	20,000 Megohm
105°C	1,000	2,000 Megohm
125°C	500	1,000 Megohm

Dissipation Factor: When measured at 25°C and 1KHZ, units to 10.0 Mfd. will measure .3% or less. Values greater than 10.0 Mfd. will measure 1% max.

Dielectric Strength: Will withstand up to and including 200% of rated voltage not to exceed 1 minute.

Capacitance Versus Temperature: (See chart below).

ENVIRONMENTAL CAPABILITIES

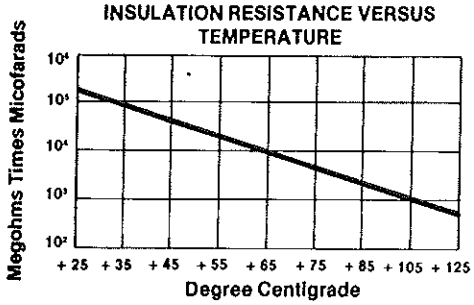
Operating Temperature: From −55°C to 105°C without derating. When properly encapsulated, units may be operated to 125°C with 50% deration.

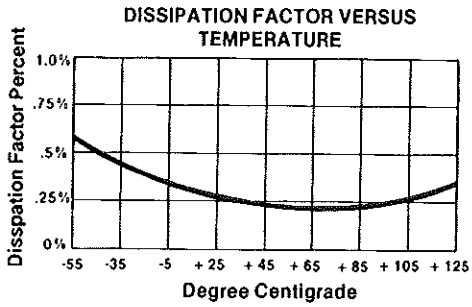
Moisture Resistance: The wrap and fill encasements will withstand up to 70 hours at 85% humidity. Aplications that are exposed to longer periods of relative humidity above 85% should provide suitable protection, such as ample potting or a hermetic seal encased circuit, and/or S&EI hermetic encased capacitor series 22E.

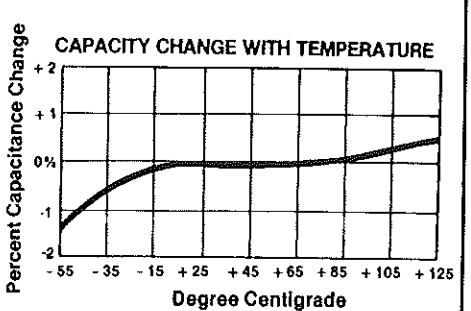
Vibration and Shock: When tested in accordance to the methods set forth in MIL—STD-202E, will meet the requirements of method 204, Condition D for vibration and method 213, Condition A for shock.

Life Tests: Will withstand a minimum of 1000 hrs. at 150°C at rated voltage or 250 hrs. at 140% of rated voltage.

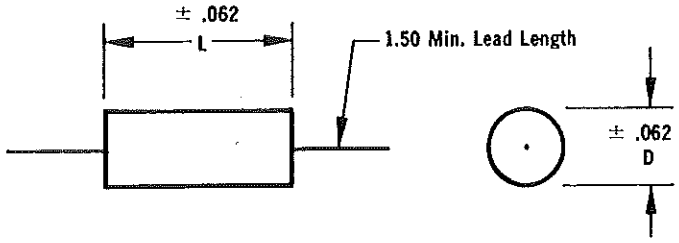
Production and Quality Control Test: Consists of 100% production and final testing for dielectric withstanding voltage, insulation resistance, capacitance and dissipation factor, in accordance with methods 301, 302, 305 and 306 of MIL- STD-202.







Axial Lead Style



CASE LENGTH VERSUS LEAD WIRE		
.40 through .54	24 AWG	.020"
.67 through .97	22 AWG	.025"
1.16 and longer	20 AWG	.032"

ORDERING INFORMATION (Dimension and Configuration Data)

EXAMPLE CALLOUT *(Key to Part Number System)*

22 { Dielectric: Metallized Polycarbonate

R* { Encasement: Wrap Fill, Round Epoxy End Seals, Axial Lead

C* { Voltage:
A = 50 VDC
B = 100 VDC
C = 200 VDC
E = 400 VDC
F = 600 VDC

102* { Capacitance: Expressed in MMFD. 2 digits significant, last digit indicates number of zeros (102 = .001 MFD).

K { Capacity Tol:
STD. = 20%
K = 10%
J = 5%
H = 3%
G = 2%
F = 1%

SIZE CHART

	50 VDC			100 VDC			200 VDC			400 VDC			600 VDC		
Cap MFD	Dash No.	Dimensions Dia	Lgth	Dash No.	Dimensions Dia	Lgth	Dash No.	Dimensions Dia	Lgth	Dash No.	Dimensions Dia	Lgth	Dash No.	Dimensions Dia	Lgth
.001	A102	.16	.40	B102	.16	.40	C102	.17	.40	E102	.17	.40	F102	.20	.40
.0022	A222	.16	.40	B222	.16	.40	C222	.17	.40	E222	.17	.40	F222	.20	.40
.0033	A332	.16	.40	B332	.16	.40	C332	.17	.40	E332	.17	.40	F332	.23	.54
.0047	A472	.16	.40	B472	.16	.40	C472	.17	.40	E472	.17	.40	F472	.23	.54
.0056	A562	.16	.40	B562	.16	.40	C562	.17	.40	E562	.22	.40	F562	.24	.54
.0068	A682	.16	.40	B682	.16	.40	C682	.17	.40	E682	.22	.40	F682	.25	.54
.0082	A822	.16	.40	B822	.16	.40	C822	.17	.40	E822	.25	.40	F822	.27	.54
.01	A103	.16	.40	B103	.16	.40	C103	.18	.40	E103	.26	.40	F103	.29	.54
.012	A123	.16	.40	B123	.16	.40	C123	.20	.40	E123	.23	.54	F123	.31	.54
.015	A153	.16	.40	B153	.16	.40	C153	.20	.40	E153	.23	.54	F153	.34	.54
.018	A183	.16	.40	B183	.16	.40	C183	.21	.40	E183	.25	.54	F183	.36	.54
.022	A223	.16	.40	B223	.18	.40	C223	.22	.40	E223	.26	.54	F223	.35	.67
.027	A273	.16	.40	B273	.18	.40	C273	.18	.54	E273	.28	.54	F273	.38	.67
.033	A333	.16	.40	B333	.19	.40	C333	.20	.54	E333	.31	.54	F333	.35	.83
.039	A393	.16	.40	B393	.19	.40	C393	.22	.54	E393	.35	.54	F393	.37	.83
.047	A473	.17	.40	B473	.21	.40	C473	.23	.54	E473	.38	.54	F473	.40	.83
.056	A563	.17	.40	B563	.22	.40	C563	.24	.54	E563	.34	.67	F563	.44	.83
.082	A823	.17	.40	B823	.19	.54	C823	.27	.54	E823	.40	.67	F823	.50	.83
.1	A104	.18	.40	B104	.21	.54	C104	.25	.67	E104	.44	.67	F104	.45	1.16
.12	A124	.18	.40	B124	.22	.54	C124	.27	.67	E124	.47	.67	F124	.48	1.16
.15	A154	.19	.40	B154	.24	.67	C154	.28	.67	E154	.45	.83	F154	.52	1.16
.18	A184	.21	.40	B184	.25	.67	C184	.30	.67	E184	.47	.83	F184	.57	1.16
.22	A224	.17	.54	B224	.28	.67	C224	.31	.67	E224	.45	.97	F224	.62	1.16
.25	A254	.18	.54	B254	.29	.67	C254	.32	.67	E254	.47	.97	F254	.65	1.16
.27	A274	.19	.54	B274	.30	.67	C274	.32	.83	E274	.50	.97	F274	.52	1.73
.33	A334	.21	.54	B334	.31	.67	C334	.36	.83	E334	.55	.97	F334	.56	1.73
.39	A394	.22	.54	B394	.32	.67	C394	.39	.83	E394	.50	1.16	F394	.62	1.73
.47	A474	.23	.54	B474	.39	.67	C474	.39	.97	E474	.59	1.16	F474	.68	1.73
.50	A504	.24	.54	B504	.39	.67	C504	.42	.97	E504	.62	1.16	F504	.70	1.73
.56	A564	.25	.54	B564	.38	.83	C564	.48	.97	E564	.52	1.73	F564	.73	1.73
.68	A684	.28	.54	B684	.40	.83	C684	.38	1.16	E684	.58	1.73	F684	.81	1.73
.82	A824	.24	.67	B824	.38	.97	C824	.43	1.16	E824	.63	1.73	F824	.92	1.73
1.0	A105	.29	.67	B105	.39	.97	C105	.45	1.16	E105	.69	1.73	F105	1.0	1.73
1.5	A155	.27	.83	B155	.45	1.16	C155	.50	1.16	E155	.82	1.73			
2.0	A205	.32	.83	B205	.51	1.16	C205	.48	1.68	E205	1.00	1.73			
3.0	A305	.30	1.16	B305	.36	1.68	C305	.58	1.68						
4.0	A405	.35	1.16	B405	.42	1.68	C405	.68	1.68						
5.0	A505	.39	1.16	B505	.50	1.68	C505	.75	1.68						
8.0	A805	.46	1.16	B805	.58	1.68	C805	.95	1.68						
10.0	A106	.52	1.16	B106	.65	1.68	C106	1.1	1.68						
15.0	A156	.52	1.68	B156	.76	1.68									
20.0	A206	.59	1.68	B206											
30.0	A306	.70	1.68												
40.0	A406	.78	1.68												
50.0	A506	.88	1.68												
60.0	A606	1.0	1.68												
70.0	A706	1.1	1.68												

NOTE: All dimensions are ± .062 in.

** Other types of leads, configurations, encasements, capacitance values, and voltages are available upon request.*