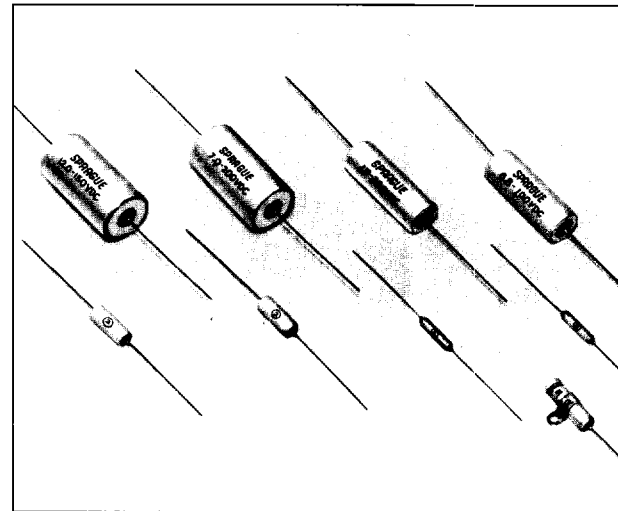


Hermetically-Sealed Metal Case Metalized Polyester-Film Capacitors

Features—

- Moderate Cost
- Small Size
- Extensive Standard Ratings
- Wire Leads or Tab Terminals



2142A

Electrical Specifications—

Operating Temperature:
-55°C to +105°C.

Capacitance Range:
0.001 μ F to 12.0 μ F.

DC Voltage Range:
100 VDC to 600 VDC.

Capacitance Tolerance:
 \pm 20%, \pm 10%, \pm 5%.

Voltage Derating:
At +125°C. 50% of +105°C rating.

Dissipation Factor: 1.0% Max.

Voltage Test:
200% of rated voltage for 2 minutes.

Insulation Resistance:
At +25°C. 50,000 Megohm-Microfarads
or 100,000 Megohms Min.

At +85°C. 3,000 Megohm-Microfarads
or 6,000 Megohms Min.

At +105°C. 250 Megohm-Microfarads
or 500 Megohms Min.

At +125°C. 10 Megohm-Microfarads
or 100 Megohms Min.

Environmental Characteristics—

(See Test Procedures page 190.)

Vibration Test (Condition B):
No mechanical damage, short,
open or intermittent circuits.

Moisture Resistance:

MIL-STD-202, Method 106E, 10 cycles
No visible damage.

Max. Δ Cap. \pm 10%

Min. I.R. = 50% of initial limit

Max. D.F. = 1.1%

DC Life Test: 125% of rated voltage
for 250 hours at +105°C.

No open or short circuits.

No visible damage.

Max. Δ Cap. \pm 10%

Min. I.R. = 50% of initial limit

Max. D.F. = 1.25%

Thermal Shock and Immersion Cycling:

No visible damage.

Max. Δ Cap. \pm 10%

Min. I.R. = 50% of initial limit

Max. D.F. = 1.1%

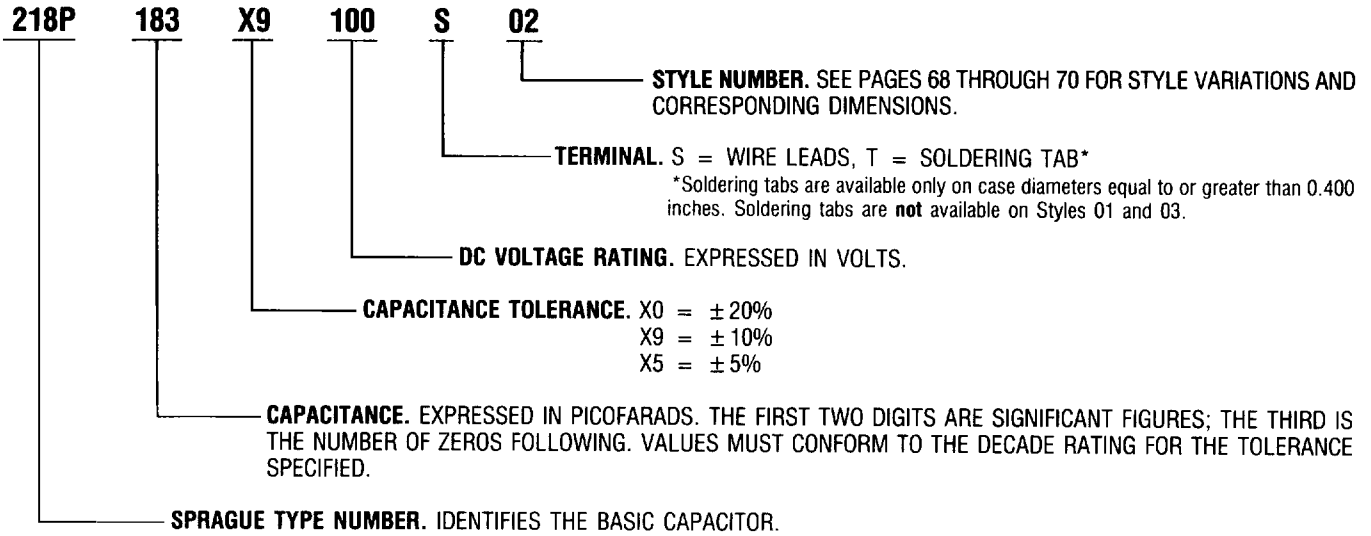
Physical Characteristics—

Lead Pull: 5 lbs. (2.3KG) for one
minute. No physical damage.

Lead Bend: After three complete
consecutive bends. No damage.

Marking: Sprague trademark, type or
catalog number, capacitance,
and voltage.

CATALOG NUMBERING SYSTEM



Leads are bare solid tinned wire. Lead wire sizes are:

Case Dia.	Lead AWG
.175 and .195	No. 24
.235 and .312	No. 22
.400 and over	No. 20

STANDARD RATINGS

μF	Catalog Number* $\pm 10\%$ Tol.	Inches		Millimeters	
		D	L*	D	L*
100 VOLTS D-C					
0.018	218P183X9100S02	0.175	0.750	4.44	19.02
0.022	218P223X9100S02	0.175	0.750	4.44	19.02
0.027	218P273X9100S02	0.175	0.750	4.44	19.02
0.033	218P333X9100S02	0.175	0.750	4.44	19.02
0.039	218P393X9100S02	0.195	0.750	4.95	19.02
0.047	218P473X9100S02	0.195	0.750	4.95	19.02
0.056	218P563X9100S02	0.235	0.750	5.97	19.02
0.068	218P683X9100S02	0.235	0.750	5.97	19.02
0.082	218P823X9100S02	0.235	0.750	5.97	19.02
0.10	218P104X9100S02	0.235	0.750	5.97	19.02
0.18	218P184X9100S02	0.312	0.875	7.92	22.19
0.22	218P224X9100S02	0.312	0.875	7.92	22.19
0.27	218P274X9100S02	0.312	0.875	7.92	22.19
0.33	218P334X9100S02	0.312	0.875	7.92	22.19
0.39	218P394X9100S02	0.312	1.125	7.92	28.54
0.47	218P474X9100S02	0.312	1.125	7.92	28.54
0.56	218P564X9100S02	0.400	1.125	10.16	28.54
0.68	218P684X9100S02	0.400	1.125	10.16	28.54
0.82	218P824X9100S02	0.400	1.125	10.16	28.54
1.0	218P105X9100S02	0.400	1.125	10.16	28.54
1.5	218P155X9100S02	0.500	1.125	12.70	28.54
2.2	218P225X9100S02	0.562	1.125	14.27	28.54
2.7	218P275X9100S02	0.562	1.375	14.27	34.89
3.3	218P335X9100S02	0.562	1.375	14.27	34.89
3.9	218P395X9100S02	0.562	1.625	14.27	41.24
4.0	218P405X9100S02	0.562	1.625	14.27	41.24
4.7	218P475X9100S02	0.562	1.875	14.27	47.59
5.0	218P505X9100S02	0.562	1.875	14.27	47.59
5.6	218P565X9100S02	0.670	1.625	17.02	41.24
6.0	218P605X9100S02	0.670	1.625	17.02	41.24
6.8	218P685X9100S02	0.670	1.875	17.02	47.59
7.0	218P705X9100S02	0.670	1.875	17.02	47.59
10.0	218P106X9100S02	0.750	1.875	19.05	47.59
12.0	218P126X9100S02	0.750	2.375	19.05	60.29
150 VOLTS D-C					
0.027	218P273X9150S02	0.195	0.750	4.95	19.02
0.033	218P333X9150S02	0.195	0.750	4.95	19.02
0.039	218P393X9150S02	0.235	0.750	5.97	19.02
0.047	218P473X9150S02	0.235	0.750	5.97	19.02
0.056	218P563X9150S02	0.235	0.750	5.97	19.02
0.068	218P683X9150S02	0.235	0.750	5.97	19.02
0.082	218P823X9150S02	0.312	0.875	7.92	22.19
0.10	218P104X9150S02	0.312	0.875	7.92	22.19
0.18	218P184X9150S02	0.312	0.875	7.92	22.19
0.22	218P224X9150S02	0.312	0.875	7.92	22.19
0.27	218P274X9150S02	0.312	1.125	7.92	28.54
0.33	218P334X9150S02	0.312	1.125	7.92	28.54
0.39	218P394X9150S02	0.400	1.125	10.16	28.54
0.47	218P474X9150S02	0.400	1.125	10.16	28.54
0.56	218P564X9150S02	0.400	1.125	10.16	28.54

*The catalog numbers and dimensions shown are for style 02 with capacitance tolerance of $\pm 10\%$. To specify another style, change the last two digits of catalog number and the dimensions to correspond to specific styles shown on pages 68 thru 70. To specify another capacitance tolerance change X9 to X0 for $\pm 20\%$, or X5 for $\pm 5\%$.

STANDARD RATINGS

μF	Catalog Number* $\pm 10\%$ Tol.	Inches		Millimeters	
		D	L*	D	L*
150 VOLTS D-C (Cont.)					
0.68	218P684X9150S02	0.400	1.125	10.16	28.54
0.82	218P824X9150S02	0.500	1.125	12.70	28.54
1.0	218P105X9150S02	0.500	1.125	12.70	28.54
1.5	218P155X9150S02	0.562	1.125	14.27	28.54
2.0	218P205X9150S02	0.562	1.375	14.27	34.89
2.2	218P225X9150S02	0.562	1.375	14.27	34.89
2.5	218P255X9150S02	0.562	1.625	14.27	41.24
2.7	218P275X9150S02	0.562	1.625	14.27	41.24
3.0	218P305X9150S02	0.670	1.375	17.02	34.89
3.3	218P335X9150S02	0.670	1.625	17.02	41.24
4.0	218P405X9150S02	0.670	1.625	17.02	41.24
4.7	218P475X9150S02	0.670	1.875	17.02	47.59
5.0	218P505X9150S02	0.670	1.875	17.02	47.59
5.6	218P565X9150S02	0.670	2.125	17.02	53.94
6.0	218P605X9150S02	0.750	1.875	19.05	47.59
6.8	218P685X9150S02	0.750	2.125	19.05	53.94
8.0	218P805X9150S02	0.750	2.375	19.05	60.29
10.0	218P106X9150S02	0.750	2.625	19.05	66.64
12.0	218P126X9150S02	1.000	1.875	25.40	47.59
200 VOLTS D-C					
0.001	218P102X9200S02	0.175	0.750	4.44	19.02
0.0012	218P122X9200S02	0.175	0.750	4.44	19.02
0.0015	218P152X9200S02	0.175	0.750	4.44	19.02
0.0018	218P182X9200S02	0.175	0.750	4.44	19.02
0.0022	218P222X9200S02	0.175	0.750	4.44	19.02
0.0027	218P272X9200S02	0.175	0.750	4.44	19.02
0.0033	218P332X9200S02	0.175	0.750	4.44	19.02
0.0039	218P392X9200S02	0.175	0.750	4.44	19.02
0.0047	218P472X9200S02	0.175	0.750	4.44	19.02
0.0056	218P562X9200S02	0.175	0.750	4.44	19.02
0.0068	218P682X9200S02	0.175	0.750	4.44	19.02
0.0082	218P822X9200S02	0.175	0.750	4.44	19.02
0.01	218P103X9200S02	0.175	0.750	4.44	19.02
0.012	218P123X9200S02	0.175	0.750	4.44	19.02
0.015	218P153X9200S02	0.175	0.750	4.44	19.02
0.018	218P183X9200S02	0.195	0.750	4.95	19.02
0.022	218P223X9200S02	0.195	0.750	4.95	19.02
0.027	218P273X9200S02	0.235	0.750	5.97	19.02
0.033	218P333X9200S02	0.235	0.750	5.97	19.02
0.039	218P393X9200S02	0.235	0.750	5.97	19.02
0.047	218P473X9200S02	0.235	0.750	5.97	19.02
0.056	218P563X9200S02	0.312	0.875	7.92	22.19
0.068	218P683X9200S02	0.312	0.875	7.92	22.19
0.082	218P823X9200S02	0.312	0.875	7.92	22.19
0.10	218P104X9200S02	0.312	0.875	7.92	22.19

*The catalog numbers and dimensions shown are for style 02 with capacitance tolerance of $\pm 10\%$. To specify another style, change the last two digits of catalog number and the dimensions to correspond to specific styles shown on pages 68 thru 70. To specify another capacitance tolerance change X9 to X0 for $\pm 20\%$, or X5 for $\pm 5\%$.

STANDARD RATINGS

μF	Catalog Number*	Inches		Millimeters	
	± 10% Tol.	D	L*	D	L*
200 VOLTS D-C (Cont.)					
0.12	218P124X9200S02	0.312	0.875	7.92	22.19
0.15	218P154X9200S02	0.312	0.875	7.92	22.19
0.18	218P184X9200S02	0.400	0.875	10.16	22.19
0.22	218P224X9200S02	0.400	0.875	10.16	22.19
0.27	218P274X9200S02	0.400	1.125	10.16	28.54
0.33	218P334X9200S02	0.400	1.125	10.16	28.54
0.39	218P394X9200S02	0.400	1.375	10.16	34.89
0.47	218P474X9200S02	0.400	1.375	10.16	34.89
0.56	218P564X9200S02	0.500	1.125	12.70	28.54
0.68	218P684X9200S02	0.500	1.125	12.70	28.54
0.82	218P824X9200S02	0.562	1.375	14.27	34.89
1.0	218P105X9200S02	0.562	1.375	14.27	34.89
1.5	218P155X9200S02	0.562	1.625	14.27	41.24
2.0	218P205X9200S02	0.562	1.875	14.27	47.59
2.5	218P255X9200S02	0.670	1.625	17.02	41.24
3.0	218P305X9200S02	0.670	1.875	17.02	47.59
4.0	218P405X9200S02	0.750	1.875	19.05	47.59
5.0	218P505X9200S02	0.750	2.375	19.05	60.29
6.0	218P605X9200S02	0.750	2.625	19.05	66.64
7.0	218P705X9200S02	1.000	1.875	25.40	47.59
10.0	218P106X9200S02	1.000	2.375	25.40	60.29
12.0	218P126X9200S02	1.000	2.625	25.40	66.64
400 VOLTS D-C					
0.0039	218P392X9400S02	0.235	0.750	5.97	19.02
0.0047	218P472X9400S02	0.235	0.750	5.97	19.02
0.0056	218P562X9400S02	0.235	0.750	5.97	19.02
0.0068	218P682X9400S02	0.235	0.750	5.97	19.02
0.0082	218P822X9400S02	0.235	0.750	5.97	19.02
0.010	218P103X9400S02	0.235	0.750	5.97	19.02
0.012	218P123X9400S02	0.312	0.875	7.92	22.19
0.015	218P153X9400S02	0.312	0.875	7.92	22.19
0.018	218P183X9400S02	0.312	0.875	7.92	22.19
0.022	218P223X9400S02	0.312	0.875	7.92	22.19
0.027	218P273X9400S02	0.312	0.875	7.92	22.19
0.033	218P333X9400S02	0.312	0.875	7.92	22.19
0.039	218P393X9400S02	0.400	0.875	10.16	22.19
0.047	218P473X9400S02	0.400	0.875	10.16	22.19
0.056	218P563X9400S02	0.400	1.125	10.16	28.54
0.068	218P683X9400S02	0.400	1.125	10.16	28.54
0.082	218P823X9400S02	0.400	1.125	10.16	28.54
0.1	218P104X9400S02	0.400	1.125	10.16	28.54
0.12	218P124X9400S02	0.500	1.125	12.70	28.54
0.15	218P154X9400S02	0.500	1.125	12.70	28.54
0.18	218P184X9400S02	0.562	1.125	14.27	28.54
0.22	218P224X9400S02	0.562	1.125	14.27	28.54
0.27	218P274X9400S02	0.562	1.625	14.27	41.24
0.33	218P334X9400S02	0.562	1.625	14.27	41.24
0.39	218P394X9400S02	0.562	1.875	14.27	47.59
0.47	218P474X9400S02	0.562	1.875	14.27	47.59
0.56	218P564X9400S02	0.670	1.875	17.02	47.59
0.68	218P684X9400S02	0.670	1.875	17.02	47.59
0.82	218P824X9400S02	0.750	2.125	19.05	53.94
1.0	218P105X9400S02	0.750	2.125	19.05	53.94
1.5	218P155X9400S02	0.750	2.625	19.05	66.64
2.0	218P205X9400S02	1.000	2.125	25.40	53.94
2.5	218P255X9400S02	1.000	2.625	25.40	66.64

*The catalog numbers and dimensions shown are for style 02 with capacitance tolerance of ± 10%. To specify another style, change the last two digits of catalog number and the dimensions to correspond to specific styles shown on pages 68 thru 70. To specify another capacitance tolerance change X9 to X0 for ± 20%, or X5 for ± 5%.