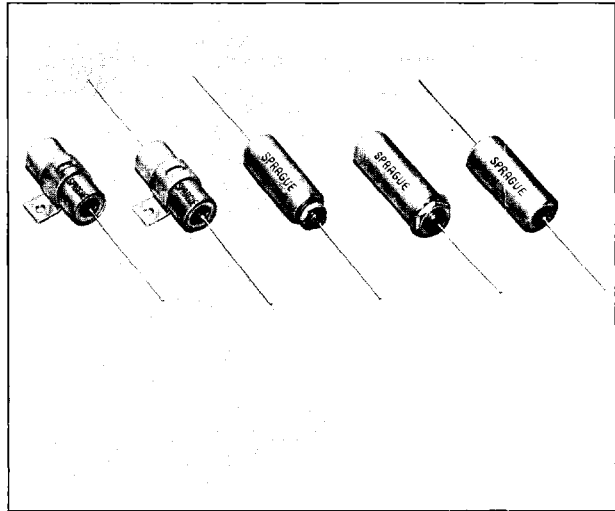


Hermetically-Sealed Metal-Case Polycarbonate-Film AC Capacitors

Features—

- High Stability
- Small Size
- Low Power Dissipation
- Low Dielectric Absorption
- Wire Leads or Tab Terminals



2143A

Electrical Specifications—

Capacitance Range:

0.01 μ F to 10.0 μ F.

AC Voltage Range:

80 Vrms to 440 Vrms at 400Hz.

Capacitance Tolerance:

\pm 20%, \pm 10%, \pm 5%.

Operating Temperature:

-55°C to +85°C.

Voltage Derating:

At +105° C. 75% of +85°C rating.

Dissipation Factor: 0.3% Max.

AC Voltage Test:

140% of rated voltage for 2 minutes.

Insulation Resistance: Measurements made after a 2 minute charge at 200 volts d-c for a-c ratings equal to or less than 330 VRMS and at 400 volts d-c for a-c ratings greater than 330 VRMS.

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

At +85°C. 10,000 Megohm-Microfarads or 50,000 Megohms Min.

At +105°C. 2,000 Megohm-Microfarads or 10,000 Megohms Min.

Environmental Characteristics—

(See Test Procedures page 190.)

Vibration Test (Condition B):

No mechanical damage, no short, open or intermittent circuits.

Moisture Resistance:

To 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. = 0.5%

AC Life Test: 110% of rated rms voltage at 400Hz for 250 hours at +85°C.

Max. Δ Cap. \pm 5%

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

Max. D.F. = 0.5%

Thermal Shock and Immersion Cycling:

No visible damage.

Max. Δ Cap. \pm 10%

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

Max. D.F. = 0.5%

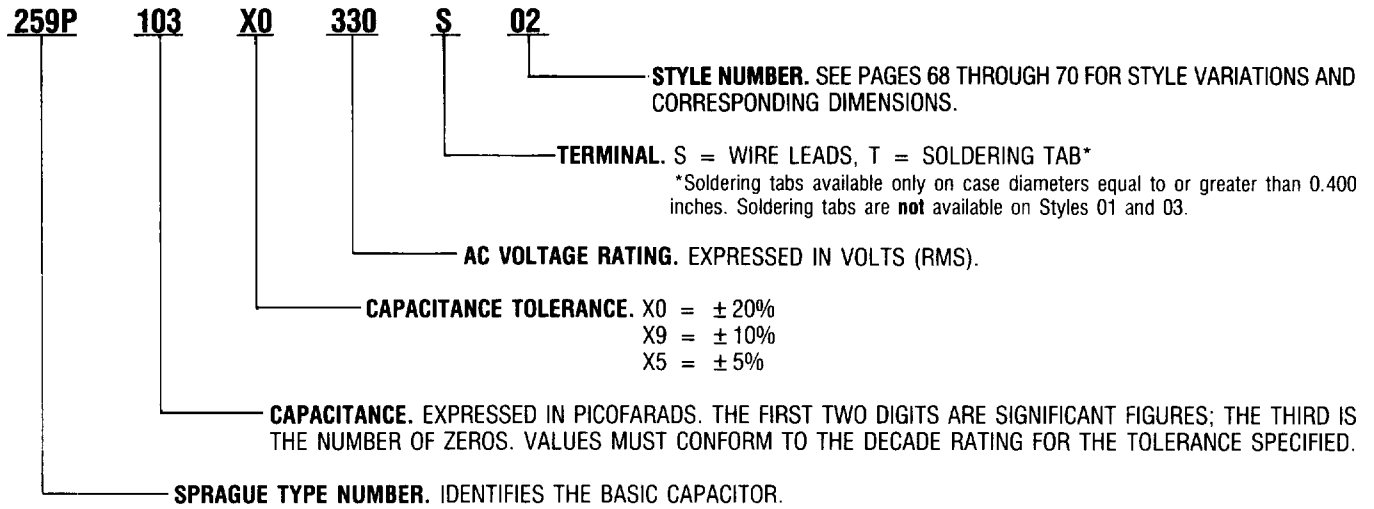
Physical Characteristics—

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
.312	No. 20
.400 and over	No. 18

STANDARD AC RATINGS

μF	400 Hz Volts RMS @ 85°C	Catalog Number* ± 10% Tol.	Inches		Millimeters		
			D	L*	D	L*	
LOW VOLTAGE RANGE — 80 VRMS TO 165 VRMS							
0.039	165	259P393X9165S02	0.312	0.875	7.92	22.23	
0.047	165	259P473X9165S02	0.312	0.875	7.92	22.23	
0.056	165	259P563X9165S02	0.312	0.875	7.92	22.23	
0.068	165	259P683X9165S02	0.312	0.875	7.92	22.23	
0.082	165	259P823X9165S02	0.312	0.875	7.92	22.23	
0.1	165	259P104X9165S02	0.312	0.875	7.92	22.23	
0.12	165	259P124X9165S02	0.312	1.125	7.92	28.58	
0.15	165	259P154X9165S02	0.312	1.125	7.92	28.58	
0.18	165	259P184X9165S02	0.400	0.875	10.16	22.23	
0.22	165	259P224X9165S02	0.400	0.875	10.16	22.23	
0.27	165	259P274X9165S02	0.400	1.125	10.16	28.58	
0.33	165	259P334X9165S02	0.400	1.125	10.16	28.58	
0.39	165	259P394X9165S02	0.400	1.375	10.16	34.93	
0.47	165	259P474X9165S02	0.400	1.375	10.16	34.93	
0.56	165	259P564X9165S02	0.562	1.125	14.27	28.58	
0.68	165	259P684X9165S02	0.562	1.125	14.27	28.58	
0.82	165	259P824X9165S02	0.562	1.375	14.27	34.93	
1.0	165	259P105X9165S02	0.562	1.375	14.27	34.93	
1.5	155	259P155X9155S02	0.562	1.625	14.27	41.28	
2.0	150	259P205X9150S02	0.670	1.625	17.02	41.28	
2.2	150	259P225X9150S02	0.670	1.625	17.02	41.28	
2.5	145	259P255X9145S02	0.670	1.875	17.02	47.63	
3.0	140	259P305X9140S02	0.750	1.875	19.05	47.63	
3.3	140	259P335X9140S02	0.750	1.875	19.05	47.63	
4.0	135	259P405X9135S02	0.750	2.125	19.05	53.98	
4.7	130	259P475X9130S02	0.750	2.375	19.05	60.33	
5.0	130	259P505X9130S02	0.750	2.375	19.05	60.33	
6.8	110	259P685X9110S02	1.000	1.875	25.40	47.63	
8.0	100	259P805X9100S02	1.000	2.125	25.40	53.98	
9.0	090	259P905X9090S02	1.000	2.375	25.40	53.98	
10.0	080	259P106X9080S02	1.000	2.625	25.40	53.98	
INTERMEDIATE VOLTAGE RANGE — 215 VRMS TO 330 VRMS							
0.01	330	259P103X9330S02	0.312	0.875	7.92	22.23	
0.012	330	259P123X9330S02	0.400	0.875	10.16	22.23	
0.015	330	259P153X9330S02	0.400	0.875	10.16	22.23	
0.018	330	259P183X9330S02	0.400	0.875	10.16	22.23	
0.022	330	259P223X9330S02	0.400	0.875	10.16	22.23	
0.027	330	259P273X9330S02	0.400	1.125	10.16	28.58	
0.033	330	259P333X9330S02	0.400	1.125	10.16	28.58	
0.039	330	259P393X9330S02	0.400	1.125	10.16	28.58	
0.047	330	259P473X9330S02	0.400	1.125	10.16	28.58	
0.056	330	259P563X9330S02	0.400	1.375	10.16	34.93	
0.068	330	259P683X9330S02	0.400	1.375	10.16	34.93	
0.082	330	259P823X9330S02	0.500	1.125	12.70	28.58	

*The catalog numbers and dimensions shown are for style O2 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 ±20% or X5 for ±5%.

STANDARD AC RATINGS

μF	400 Hz Volts RMS @ 85°C	Catalog Number* ± 10% Tol.	Inches		Millimeters	
			D	L*	D	L*
INTERMEDIATE VOLTAGE RANGE — 215 VRMS TO 330 VRMS (Cont.)						
0.10	330	259P104X9330S02	0.500	1.125	12.70	28.58
0.12	330	259P124X9330S02	0.562	1.375	14.28	34.93
0.15	330	259P154X9330S02	0.562	1.375	14.28	34.93
0.18	330	259P184X9330S02	0.562	1.625	14.28	41.28
0.22	330	259P224X9330S02	0.562	1.625	14.28	41.28
0.27	330	259P274X9330S02	0.562	1.875	14.28	47.63
0.33	330	259P334X9330S02	0.562	1.875	14.28	47.63
0.39	330	259P394X9330S02	0.670	1.625	17.02	41.28
0.47	330	259P474X9330S02	0.670	1.625	17.02	41.28
0.56	320	259P564X9320S02	0.750	1.875	19.05	47.63
0.68	320	259P684X9320S02	0.750	1.875	19.05	47.63
0.82	300	259P824X9300S02	0.750	2.125	19.05	53.98
1.0	300	259P105X9300S02	0.750	2.125	19.05	53.98
1.5	265	259P155X9265S02	1.000	1.875	25.40	47.63
2.2	215	259P225X9215S02	1.000	2.625	25.40	66.68
HIGH VOLTAGE RANGE — 390 VRMS TO 440 VRMS						
0.01	440	259P103X9440S02	0.312	1.125	7.92	28.58
0.012	440	259P123X9440S02	0.400	1.125	10.16	28.58
0.015	440	259P153X9440S02	0.400	1.125	10.16	28.58
0.018	440	259P183X9440S02	0.400	1.125	10.16	28.58
0.022	440	259P223X9440S02	0.400	1.125	10.16	28.58
0.027	440	259P273X9440S02	0.400	1.375	10.16	34.93
0.033	440	259P333X9440S02	0.400	1.375	10.16	34.93
0.039	440	259P393X9440S02	0.562	1.125	14.28	28.58
0.047	440	259P473X9440S02	0.562	1.125	14.28	28.58
0.056	440	259P563X9440S02	0.562	1.375	14.28	34.93
0.068	440	259P683X9440S02	0.562	1.375	14.28	34.93
0.082	440	259P823X9440S02	0.562	1.625	14.28	41.28
0.10	440	259P104X9440S02	0.562	1.625	14.28	41.28
0.12	435	259P124X9435S02	0.670	1.625	17.02	41.28
0.15	435	259P154X9435S02	0.670	1.625	17.02	41.28
0.18	430	259P184X9430S02	0.670	1.875	17.02	47.63
0.22	430	259P224X9430S02	0.670	1.875	17.02	47.63
0.27	425	259P274X9425S02	0.750	2.375	19.05	60.33
0.33	425	259P334X9425S02	0.750	2.375	19.05	60.33
0.39	410	259P394X9410S02	1.000	1.875	25.40	47.63
0.47	410	259P474X9410S02	1.000	1.875	25.40	47.63
0.56	390	259P564X9390S02	1.000	2.375	25.40	60.33
0.68	390	259P684X9390S02	1.000	2.375	25.40	60.33

*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 ±20% or X5 for ±5%.