

SECTION 1500

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SPRAGUE CAPACITORS

1972

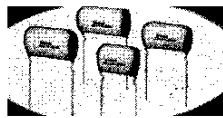
TYPE 192P PACER® FILMITE® 'E' CAPACITORS



- Completely New Construction — Extended Foil Film Sections Terminate in End Caps with Wire Leads Assuring Best Possible Non-inductive Section.
- Controlled Dimensions Permit Use of Automatic Insertion Equipment for Installing Pacer Capacitors on Printed Wiring Boards.
- Entire Assembly Protected by Orange Heat Shrinkable Mylar Sleeve.
- Pacers are Wound with Ultra-thin Polyester Film Dielectric and Thin Gage Foil under Controlled Atmospheric Conditions.
- Rated for Operation from -55 C to +85 C (-67 F to +185 F).
- Capacitance Tolerance: ±10%.
- For complete data, see Engineering Bulletin 2066.

μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.
80 WVDC								
.0022	9/64 x 5/16	192P2229R8	.00012	9/64 x 5/16	192P12192	.1	21/64 x 5/8	192P10492
.0027	9/64 x 5/16	192P2729R8	.00015	9/64 x 5/16	192P15192	.12	21/64 x 7/8	192P12492
.0033	9/64 x 5/16	192P3329R8	.00018	9/64 x 5/16	192P18192	.15	21/64 x 7/8	192P15492
.0039	9/64 x 5/16	192P3929R8	.00022	9/64 x 5/16	192P22192	.18	21/64 x 1 3/16	192P18492
.0047	9/64 x 5/16	192P4729R8	.00027	9/64 x 5/16	192P27192	.22	21/64 x 1 3/16	192P22492
.0056	11/64 x 3/8	192P5629R8	.00033	9/64 x 5/16	192P33192	400 WVDC		
.0068	11/64 x 3/8	192P6829R8	.00039	9/64 x 5/16	192P39192	.00047	11/64 x 3/8	192P47194
.0082	11/64 x 3/8	192P8229R8	.00047	9/64 x 5/16	192P47192	.00056	11/64 x 3/8	192P56194
.01	11/64 x 3/8	192P1039R8	.00056	9/64 x 5/16	192P56192	.00068	11/64 x 3/8	192P68194
.012	11/64 x 7/16	192P1239R8	.00068	9/64 x 5/16	192P68192	.00082	11/64 x 3/8	192P82194
.015	11/64 x 7/16	192P1539R8	.00082	9/64 x 5/16	192P82192	.001	11/64 x 3/8	192P10294
.018	11/64 x 1/2	192P1839R8	.001	9/64 x 5/16	192P10292	.0012	11/64 x 3/8	192P12294
.022	11/64 x 1/2	192P2239R8	.0012	9/64 x 5/16	192P12292	.0015	11/64 x 3/8	192P15294
.027	7/32 x 7/16	192P2739R8	.0015	9/64 x 5/16	192P15292	.0018	11/64 x 7/16	192P18294
.033	7/32 x 7/16	192P3339R8	.0018	11/64 x 5/16	192P18292	.0022	11/64 x 7/16	192P22294
.039	7/32 x 9/16	192P3939R8	.0022	11/64 x 5/16	192P22292	.0027	7/32 x 7/16	192P27294
.047	7/32 x 9/16	192P4739R8	.0027	11/64 x 5/16	192P27292	.0033	7/32 x 7/16	192P33294
.056	15/64 x 9/16	192P5639R8	.0033	11/64 x 5/16	192P33292	.0039	7/32 x 7/16	192P39294
.068	15/64 x 9/16	192P6839R8	.0039	11/64 x 7/16	192P39292	.0047	7/32 x 7/16	192P47294
.082	19/64 x 1/2	192P8239R8	.0047	11/64 x 7/16	192P47292	.0056	15/64 x 9/16	192P56294
.1	19/64 x 1/2	192P1049R8	.0056	11/64 x 7/16	192P56292	.0068	15/64 x 9/16	192P68294
.12	19/64 x 5/8	192P1249R8	.0068	11/64 x 7/16	192P68292	.0082	15/64 x 9/16	192P82294
.15	19/64 x 5/8	192P1549R8	.0082	11/64 x 1/2	192P82292	.01	15/64 x 9/16	192P10394
.18	21/64 x 5/8	192P1849R8	.01	11/64 x 1/2	192P10392	.012	19/64 x 1/2	192P12394
.22	21/64 x 5/8	192P2249R8	.012	7/32 x 7/16	192P12392	.015	19/64 x 1/2	192P15394
.27	21/64 x 7/8	192P2749R8	.015	7/32 x 7/16	192P15392	.018	19/64 x 5/8	192P18394
.33	21/64 x 7/8	192P3349R8	.018	7/32 x 9/16	192P18392	.022	19/64 x 5/8	192P22394
.39	21/64 x 13/16	192P3949R8	.022	7/32 x 9/16	192P22392	.027	21/64 x 5/8	192P27394
.47	21/64 x 13/16	192P4749R8	.027	15/64 x 9/16	192P27392	.033	21/64 x 5/8	192P33394
.0001	9/64 x 5/16	192P10192	.033	15/64 x 9/16	192P33392	.039	21/64 x 5/8	192P39394
			.039	19/64 x 1/2	192P39392	.047	21/64 x 7/8	192P47394
			.047	19/64 x 1/2	192P47392	.056	21/64 x 1 3/16	192P56394
			.056	19/64 x 5/8	192P56392	.068	21/64 x 1 3/16	192P68394
			.068	19/64 x 5/8	192P68392	.082	21/64 x 1 3/16	192P82394
			.082	21/64 x 5/8	192P82392			

TYPE DF METALLIZED FILM ORANGE DROP



- Fit Easily into Tight Spots Because They're Smaller Than Other Types of Comparably-Rated Capacitors
- Extremely High Insulation Resistance Insures Peak Performance At Temperatures Up to +85C (185F)
- Radial Leads Are Extra Long For Point-to-Point Wiring and Crimped For Printed Board Insertion
- Double Dipped in Orange Epoxy Resin For Protection Against Heat And Humidity
- Capacitance Tolerance: ±10% • Same as Sprague O.E.M. Type 277P
- For Complete Data, See Latest Issue of Sprague Engineering Bulletin 2040.

Call Your Sprague Industrial Distributor For Current Quantity Prices

100 WVDC			200 WVDC								
μF	H. x T. x L.	Cat. No.	μF	H. x T. x L.	Cat. No.	μF	H. x T. x L.	Cat. No.	μF	H. x T. x L.	Cat. No.
.15	1 5/32 x 1/4 x 1 1/16	1DF-P15	2.5	1 3/16 x 1 1/32 x 1 1/4	1DF-M2.5	.15	3/16 x 3/8 x 3/16	2DF-P15	2.5	1 1/16 x 1 1/16 x 1 1/4	2DF-M2.5
.22	1/2 x 1/4 x 1 1/16	1DF-P22	3.0	2 5/32 x 9/16 x 1 5/8	1DF-M3	.22	5/8 x 7/16 x 1 1/16	2DF-P22	3.0	1 5/16 x 1 1/16 x 1 5/8	2DF-M3
.33	1 1/32 x 9/16 x 1 1/16	1DF-P33	3.5	1 1/16 x 1 1/32 x 1 5/8	1DF-M3.5	.33	1 1/16 x 1/2 x 1 1/16	2DF-P33	3.5	1 x 3/4 x 1 5/8	2DF-M3.5
.47	5/8 x 1 1/32 x 1 1/16	1DF-P47	4.0	2 7/32 x 5/8 x 1 5/8	1DF-M4	.47	1 1/16 x 1/16 x 1 1/16	2DF-P47	4.0	1 1/16 x 1 1/16 x 1 5/8	2DF-M4
.68	9/16 x 1 1/32 x 1 1/4	1DF-P68	4.5	7/8 x 2 1/32 x 1 5/8	1DF-M4.5	.68	3/4 x 1/2 x 1 1/4	2DF-P68	4.5	1 1/8 x 7/8 x 1 5/8	2DF-M4.5
1.0	3/8 x 1 1/32 x 1 1/4	1DF-M1	5.0	2 3/32 x 1 1/16 x 1 5/8	1DF-M5	1.0	1 1/16 x 9/16 x 1 1/4	2DF-M1	5.0	1 1/8 x 7/8 x 1 5/8	2DF-M5
1.5	1 1/16 x 1 1/32 x 1 1/4	1DF-M1.5	5.5	1 1/16 x 2 3/32 x 1 5/8	1DF-M5.5	1.5	7/8 x 7/8 x 1 1/4	2DF-M1.5	5.5	1 1/16 x 1 1/16 x 1 5/8	2DF-M5.5
2.0	2 5/32 x 9/16 x 1 1/4	1DF-M2				2.0	1 1/16 x 1 1/16 x 1 1/4	2DF-M2			

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IND-REM-40a-EBAR

All sizes subject to change without notice.

SECTION 1500

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Sprague Capacitors
1972

118P DIFILM Metallized Capacitors



- Best of their type possible to produce at the present state of the art
- Rated for operation at 125°C WITHOUT VOLTAGE DERATING.
- Unique dual dielectric - a combination of metallized paper and of polyester film, impregnated with high-temperature mineral wax.
- Higher insulation resistance than any other metallized paper capacitors - at 125°C, minimum product of insulation resistance and capacitance is 10 megohm-microfarads for 200 V units or 40 megohm-microfarads for 400 and 600 V units.

- Capacitor sections are effectively of non-inductive construction, resulting in capacitors unmatched by any other metallized capacitors.
- Hermetically sealed, with glass-to-metal solder-seal terminals.
- May be used at extremely low voltages where metallized paper construction has previously been unsatisfactory.
- Capacitors listed below are ungrounded case (insulated section) units without outer insulating sleeves. For information on other styles consult your Sprague Industrial Distributor.
- For units with insulating sleeves, change last digit from "2" to "4."
- Capacitance Tolerance ± 10%. For ± 20% units, change 8th digit from "9" to "0."
- For complete data, see latest issue of Engineering Bulletin 2211.

μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.
200 WVDC						400 WVDC			600 WVDC		
.01	.175 x .749	118P10392S2	.27	.400 x 1.124	118P27492S2	5.0	1.000 x 1.874	118P50592S2	.01	.312 x .874	118P10396S2
.015	.195 x .749	118P15392S2	.33	.400 x 1.124	118P33492S2	6.0	1.000 x 1.874	118P60592S2	.047	.400 x 1.124	118P47396S2
.022	.235 x .749	118P22392S2	.47	.500 x 1.124	118P47492S2	8.0	1.000 x 1.874	118P80592S2	.1	.500 x 1.124	118P10496S2
.033	.235 x .749	118P33392S2	.56	.500 x 1.124	118P56492S2	10.0	1.000 x 2.374	118P10692S2	.15	.562 x 1.124	118P15496S2
.047	.312 x .874	118P47392S2	.68	.500 x 1.124	118P68492S2	12.0	1.000 x 2.624	118P12692S2	.22	.562 x 1.374	118P22496S2
.068	.312 x .874	118P68392S2	.82	.562 x 1.124	118P82492S2				.33	.562 x 1.624	118P33496S2
.082	.312 x .874	118P82392S2	1.0	.562 x 1.124	118P10592S2				.47	.670 x 1.624	118P47496S2
.1	.312 x .874	118P10492S2	1.5	.562 x 1.624	118P15592S2	1.0	.750 x 1.874	118P10594S2	1.0	1.000 x 1.874	118P10596S2
.15	.312 x 1.124	118P15492S2	2.0	.670 x 1.624	118P20592S2	2.0	1.000 x 1.874	118P20594S2	2.0	1.000 x 2.124	118P20596S2
.22	.400 x .874	118P22492S2	3.0	.670 x 1.874	118P30592S2	3.0	1.000 x 2.624	118P30594S2	2.5	1.000 x 2.624	118P25596S2
			4.0	.750 x 1.874	118P40592S2						

121P Metallized Paper Capacitors

- Designed to operate at 125 C WITHOUT VOLTAGE DERATING - extremely important in military and industrial equipment where higher temperatures are encountered.
- Quality of these capacitors is surpassed only by Type 118P units described above.
- High insulation resistance - at 85 C, Minimum product of insulation resistance and capacitance is 20 megohm-microfarads. At 125 C, minimum product is 1.0 megohm-microfarads.
- Hermetically sealed with glass-to-metal solder-

seal terminals - capacitor cases are of corrosion resistant materials - similar in appearance to Type 118P.

- May be operated at low voltages, unlike many other metallized capacitors.
- Capacitors listed below are ungrounded case (insulated section) units without outer insulating sleeves. For information on other styles consult your Sprague Industrial Distributor.
- For units with outer plastic insulating sleeve, change last digit from 2 to 4.



- Capacitance tolerance, ± 10%. For ± 20% units, change 8th digit from "9" to "0."
- Rated for operation at 150 WVDC.
- For complete technical data, see latest issue of Engineering Bulletin 2210.

μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.
1.5	.562 x 1-1/8	121P15591R5S2	4.0	.670 x 1-5/8	121P40591R5S2	10	.750 x 2-5/8	121P10691R5S2
2.0	.562 x 1-3/8	121P20591R5S2	5.0	.670 x 1-7/8	121P50591R5S2	12	1.000 x 1-7/8	121P12691R5S2
3.0	.670 x 1-3/8	121P30591R5S2	6.0	.750 x 1-7/8	121P60591R5S2	16	1.000 x 2-3/8	121P16691R5S2
			8.0	.750 x 2-3/8	121P80591R5S2	18	1.000 x 2-5/8	121P18691R5S2

155P*, 156P* MOLDED METALLIZED PAPER CAPACITORS



- Superior to most competitive units - withstand twice rated voltage tests giving extra design safety factor. Stand up under high humidity condition.
 - Self-generated noise practically non-existent.
 - Type 155P in molded case. Type 156P in premolded case.
 - Sealed with epoxy.
 - Available in Klear-Pak® boxes.
- *Available until present stocks are exhausted.

μF	D.	L.	Cat. No.	μF	D.	L.	Cat. No.	μF	D.	L.	Cat. No.	μF	D.	L.	Cat. No.
200 WVDC								400 WVDC				600 WVDC			
.01	5/16	1	155P10302	1.0	1/2	1-1/2	155P10502	.033	3/8	1-1/4	155P33304	.015	3/8	1-1/4	155P15306
.015	5/16	1	155P15302	1.5	5/8	1-7/8	155P15502	.04	3/8	1-1/4	155P40304	.02	3/8	1-1/4	155P20306
.02	5/16	1	155P20302	3.0	3/4	2-1/4	156P30502	.047	3/8	1-1/4	155P47304	.022	3/8	1-1/4	155P22306
.022	5/16	1	155P22302	4.5	7/8	2-1/2	156P45502	.05	3/8	1-1/4	155P50304	.03	3/8	1-1/4	155P30306
.03	5/16	1	155P30302	5.5	7/8	2-1/2	156P55502	.068	3/8	1-1/4	155P68304	.033	3/8	1-1/4	155P33306
.033	5/16	1	155P33302	6.5	7/8	2-1/2	156P65502	.15	1/2	1-1/2	155P15404	.04	3/8	1-1/4	155P40306
.047	5/16	1	155P47302	7.5	7/8	2-1/2	156P75502	.2	1/2	1-1/2	155P20404	.047	3/8	1-1/4	155P47306
.068	5/16	1	155P68302	8.0	1	2-1/2	156P80502	.22	1/2	1-1/2	155P22404	.06	7/16	1-1/4	155P60306
.1	5/16	1	155P10402	400 WVDC				.25	5/8	1-7/8	155P25404	.068	7/16	1-1/4	155P68306
.15	3/8	1-1/4	155P15402	.01	5/16	1	155P10304	.33	5/8	1-7/8	155P33404	.15	1/2	1-1/2	155P15406
.22	3/8	1-1/4	155P22402	.015	5/16	1	155P15304	.47	5/8	1-7/8	155P47404	.2	5/8	1-7/8	155P20406
.25	7/16	1-1/4	155P25402	.02	5/16	1	155P20304	.5	5/8	1-7/8	155P50404	.22	5/8	1-7/8	155P22406
.33	7/16	1-1/4	155P33402	.022	5/16	1	155P22304	.68	3/4	2-1/4	156P68404	.58	3/4	2-1/4	156P68406
.47	7/16	1-1/4	155P47402	.025	3/8	1-1/4	155P25304	1.0	3/4	2-1/4	156P10504	1.0	7/8	2-1/2	156P10506
.68	1/2	1-1/2	155P68402	.03	3/8	1-1/4	155P30304	2.0	7/8	2-1/2	156P20504	1.5	1	2-1/2	156P15506
								2.5	1	2-1/2	156P25504				

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IND-REM-36-ERA E

Sizes subject to change without notice.

SECTION 1500

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SPRAGUE CAPACITORS 1972

Type 416P YELLOW JACKET FILMIE "E" Capacitors



Economy-priced for commercial applications.
Made in Taiwan by Taiwan Sprague Corp.

Extended-foil construction.

Protected against moisture by outer wrap of polyester film and plastic resin end seals.

Light-weight capacitors of minimum size.

Rated for -55 C to +85 C operation (to +105 C with voltage derating).

High insulation resistance.

For complete technical data, refer to latest issue of Engineering Bulletin 2063C.

μ F	D. x L.	Cat. No.	μ F	D. x L.	Cat. No.	μ F	D. x L.	Cat. No.	μ F	D. x L.	Cat. No.
50 WVDC											
0.012	.190 x 0.531	416P1239R5	0.018	.190 x 0.718	416P1839I	0.033	.190 x 0.844	416P3339I	0.15	.405 x 1.562	416P1549A
0.015	.190 x 0.531	416P1539R5	0.022	.190 x 0.718	416P2239I	0.039	.210 x 0.844	416P3939I	0.18	.480 x 1.562	416P1849A
0.018	.200 x 0.594	416P1839R5	0.027	.190 x 0.718	416P2739I	0.047	.210 x 0.844	416P4739I	0.22	.480 x 1.562	416P2249A
0.022	.200 x 0.594	416P2239R5	0.033	.190 x 0.718	416P3339I	0.056	.240 x 0.844	416P5639I	0.27	.650 x 1.750	416P2749A
0.027	.210 x 0.656	416P2739R5	0.039	.215 x 0.718	416P3939I	0.068	.240 x 0.844	416P6839I	0.33	.650 x 1.750	416P3349A
0.033	.210 x 0.656	416P3339R5	0.047	.215 x 0.718	416P4739I	0.082	.275 x 0.969	416P8239I	0.39	.725 x 1.937	416P3949A
0.039	.215 x 0.718	416P3939R5	0.056	.215 x 0.844	416P5639I	0.1	.275 x 0.969	416P1049I	0.47	.725 x 1.937	416P4749A
0.047	.215 x 0.718	416P4739R5	0.068	.215 x 0.844	416P6839I	0.12	.345 x 1.000	416P1249I			
0.056	.250 x 0.718	416P5639R5	0.082	.245 x 0.844	416P8239I	0.15	.345 x 1.000	416P1549I			
0.068	.250 x 0.718	416P6839R5	0.1	.245 x 0.844	416P1049I	0.18	.355 x 1.250	416P1849I			
0.082	.290 x 0.750	416P8239R5	0.12	.285 x 0.844	416P1249I	0.22	.355 x 1.250	416P2249I			
0.1	.290 x 0.750	416P1049R5	0.15	.285 x 0.844	416P1549I	0.27	.425 x 1.250	416P2749I			
0.12	.315 x 0.812	416P1249R5	0.18	.290 x 1.250	416P1849I	0.33	.425 x 1.250	416P3349I			
0.15	.315 x 0.812	416P1549R5	0.22	.290 x 1.250	416P2249I	0.39	.440 x 1.562	416P3949I			
0.18	.315 x 1.062	416P1849R5	0.27	.325 x 1.250	416P2749I	0.47	.440 x 1.562	416P4749I			
0.22	.315 x 1.062	416P2249R5	0.33	.325 x 1.250	416P3349I	0.56	.610 x 1.750	416P5649I			
0.27	.375 x 1.062	416P2749R5	0.39	.380 x 1.250	416P3949I	0.68	.610 x 1.750	416P6849I			
0.33	.375 x 1.062	416P3349R5	0.47	.380 x 1.250	416P4749I	0.82	.710 x 1.875	416P8249I			
0.39	.430 x 1.062	416P3949R5	0.56	.455 x 1.562	416P5649I	1.0	.710 x 1.875	416P1059I			
0.47	.430 x 1.062	416P4749R5	0.68	.455 x 1.562	416P6849I						
0.56	.450 x 1.375	416P5649R5	0.82	.535 x 1.562	416P8249I						
0.68	.450 x 1.375	416P6849R5	1.0	.535 x 1.562	416P1059I						
0.82	.500 x 1.375	416P8249R5									
1.0	.500 x 1.375	416P1059R5									
100 WVDC											
0.001	.190 x 0.450	416P1029I									
0.0012	.190 x 0.450	416P1229I									
0.0015	.190 x 0.450	416P1529I									
0.0018	.190 x 0.450	416P1829I									
0.0022	.190 x 0.450	416P2229I									
0.0027	.190 x 0.450	416P2729I									
0.0033	.190 x 0.450	416P3329I									
0.0039	.190 x 0.450	416P3929I									
0.0047	.190 x 0.450	416P4729I									
0.0056	.190 x 0.450	416P5629I									
0.0068	.190 x 0.450	416P6829I									
0.0082	.190 x 0.450	416P8229I									
0.01	.190 x 0.450	416P1039I									
0.012	.190 x 0.718	416P1239I									
0.015	.190 x 0.718	416P1539I									
0.018	.190 x 0.718	416P1839I									
0.022	.190 x 0.718	416P2239I									
0.027	.190 x 0.844	416P2739I									
200 WVDC											
0.001	.190 x 0.450	416P1029I									
0.0012	.190 x 0.450	416P1229I									
0.0015	.190 x 0.450	416P1529I									
0.0018	.190 x 0.450	416P1829I									
0.0022	.190 x 0.450	416P2229I									
0.0027	.190 x 0.450	416P2729I									
0.0033	.190 x 0.450	416P3329I									
0.0039	.190 x 0.450	416P3929I									
0.0047	.190 x 0.450	416P4729I									
0.0056	.190 x 0.450	416P5629I									
0.0068	.190 x 0.450	416P6829I									
0.0082	.190 x 0.450	416P8229I									
0.01	.190 x 0.718	416P1039I									
0.012	.190 x 0.718	416P1239I									
0.015	.190 x 0.718	416P1539I									
0.018	.190 x 0.718	416P1839I									
0.022	.190 x 0.718	416P2239I									
0.027	.190 x 0.844	416P2739I									
0.0027	.190 x 0.718	416P2729A									
0.0033	.190 x 0.718	416P3329A									
0.0039	.190 x 0.718	416P3929A									
0.0047	.190 x 0.718	416P4729A									
0.0056	.200 x 0.718	416P5629A									
0.0068	.200 x 0.718	416P6829A									
0.0082	.210 x 0.844	416P8229A									
0.01	.210 x 0.844	416P1039A									
0.012	.230 x 0.844	416P1239A									
0.015	.230 x 0.844	416P1539A									
0.018	.265 x 0.844	416P1839A									
0.022	.265 x 0.844	416P2239A									
0.027	.315 x 0.875	416P2739A									
0.033	.315 x 0.875	416P3339A									
0.039	.325 x 1.000	416P3939A									
0.047	.325 x 1.000	416P4739A									
0.056	.340 x 1.250	416P5639A									
0.068	.340 x 1.250	416P6839A									
0.082	.400 x 1.250	416P8239A									
0.1	.400 x 1.250	416P1049A									
0.12	.405 x 1.562	416P1249A									

Type 260P Metallized Filmite "K" Capacitors

- Designed for applications such as low-frequency tuned circuits, analog computer reference capacitors and precision timing and integrated circuits.
- High insulation resistance, high stability, minimum capacitance change with temperature, low dielectric absorption, low dissipation factor.

- Capacitor sections are of non-inductive construction.
- Will operate at full rated voltage over the temperature range of -55 C to +105 C.
- Capacitance tolerance, $\pm 5\%$.
- Voltage rating, 200 WVDC.
- For complete technical data, refer to latest issue of Engineering Bulletin 2705.



μ F	D. x L.	Cat. No.	μ F	D. x L.	Cat. No.	μ F	D. x L.	Cat. No.	μ F	D. x L.	Cat. No.
.01	.175 x 3/4	260P10352S4	.068	.312 x 7/8	260P68352S4	.47	.400 x 1 3/8	260P47452S4	4.0	.750 x 2 1/8	260P40552S4
.015	.195 x 3/4	260P15352S4	.1	.312 x 7/8	260P10452S4	.68	.562 x 1 1/8	260P68452S4	5.0	.750 x 2 3/8	260P50552S4
.022	.235 x 3/4	260P22352S4	.15	.312 x 1 1/8	260P15452S4	1.0	.562 x 1 3/8	260P10552S4	7.0	1.000 x 1 7/8	260P70552S4
.033	.235 x 3/4	260P33352S4	.22	.400 x 7/8	260P22452S4	2.0	.670 x 1 5/8	260P20552S4	8.0	1.000 x 2 1/8	260P80552S4
.047	.312 x 7/8	260P47352S4	.33	.400 x 1 1/8	260P33452S4	3.0	.750 x 1 7/8	260P30552S4	10.0	1.000 x 2 5/8	260P10552S4
.056	.312 x 7/8	260P56352S4									

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SPRAGUE CAPACITORS 1972

Datasheet Provided by
www.33audio.com

Type 225P FILMITE "E" Orange Drop Capacitors



- Designed specifically for printed wiring board applications and are furnished with radial leads to facilitate insertion on boards.
- Find wide application in television receivers, radio sets, and commercial electronic equipment.
- Designed for operation at temperatures to 85 C.
- Capacitor sections are wound from polyester film and thin-gage foil under carefully controlled atmospheric conditions.
- Protected against moisture by a wax-free conformal coating of epoxy.
- Capacitance tolerance, $\pm 10\%$.
- For complete technical data, refer to latest issue of Sprague Engineering Bulletin 2062.

μF	H. x T. x L.	Cat. No.	μF	H. x T. x L.	Cat. No.	μF	H. x T. x L.	Cat. No.
100 WVDC			200 WVDC			400 WVDC		
.001	5/16 x 13/64 x 45/64	225P10291WD3	.1	17/32 x 21/64 x 45/64	225P10491WD3	.068	41/64 x 5/16 x 13/16	225P68392XD3
.0012	5/16 x 13/64 x 45/64	225P12291WD3	.12	19/32 x 3/8 x 13/16	225P12491XD3	.1	23/32 x 3/8 x 13/16	225P10492XD3
.0015	5/16 x 13/64 x 45/64	225P15291WD3	.15	5/8 x 13/32 x 13/16	225P15491XD3	.15	3/4 x 27/64 x 13/16	225P15492XD3
.0018	5/16 x 13/64 x 45/64	225P18291WD3	.18	11/16 x 7/16 x 13/16	225P18491XD3	.22	25/32 x 15/32 x 13/16	225P22492XD3
.0022	5/16 x 13/64 x 45/64	225P22291WD3	.22	23/32 x 15/32 x 13/16	225P22491XD3	.33	23/32 x 27/64 x 1-3/16	225P33492YD3
.0027	5/16 x 13/64 x 45/64	225P27291WD3	.27	3/4 x 1/2 x 13/16	225P27491XD3	.47	27/32 x 1/2 x 1-3/16	225P47492YD3
.0033	5/16 x 13/64 x 45/64	225P33291WD3	.33	25/32 x 17/32 x 13/16	225P33491XD3	.68	1 9/64 x 27/32 x 1-3/16	225P68492YD3
.0039	5/16 x 13/64 x 45/64	225P39291WD3	.39	13/16 x 9/16 x 13/16	225P39491XD3			
.0047	5/16 x 13/64 x 45/64	225P47291WD3	.47	7/8 x 5/8 x 13/16	225P47491XD3			
.0056	5/16 x 13/64 x 45/64	225P56291WD3	.56	57/64 x 9/16 x 1 3/16	225P56491YD3	.001	9/16 x 15/64 x 13/16	225P10294XD3
.0068	5/16 x 13/64 x 45/64	225P68291WD3	.68	29/32 x 19/32 x 1 3/16	225P68491YD3	.0015	9/16 x 15/64 x 13/16	225P15294XD3
.0082	5/16 x 13/64 x 45/64	225P82291WD3	.82	61/64 x 21/32 x 1 3/16	225P82491YD3	.0022	9/16 x 15/64 x 13/16	225P22294XD3
.01	5/16 x 13/64 x 45/64	225P10391WD3	1.0	63/64 x 47/64 x 1 3/16	225P10591YD3	.0033	9/16 x 15/64 x 13/16	225P33294XD3
.012	5/16 x 13/64 x 45/64	225P12391WD3	200 WVDC			.0047	9/16 x 15/64 x 13/16	225P47294XD3
.015	5/16 x 13/64 x 45/64	225P15391WD3	.001	9/16 x 15/64 x 13/16	225P10292XD3	.0068	19/32 x 1/4 x 13/16	225P68294XD3
.018	5/16 x 13/64 x 45/64	225P18391WD3	.0015	9/16 x 15/64 x 13/16	225P15292XD3	.01	19/32 x 1/4 x 13/16	225P10394XD3
.022	5/16 x 13/64 x 45/64	225P22391WD3	.0022	9/16 x 15/64 x 13/16	225P22292XD3	.015	19/32 x 9/32 x 13/16	225P15394XD3
.027	21/64 x 15/64 x 45/64	225P27391WD3	.0033	9/16 x 15/64 x 13/16	225P33292XD3	.022	19/32 x 5/16 x 13/16	225P22394XD3
.033	21/64 x 15/64 x 45/64	225P33391WD3	.0047	9/16 x 15/64 x 13/16	225P47292XD3	.033	21/32 x 11/32 x 13/16	225P33394XD3
.039	11/32 x 1/4 x 45/64	225P39391WD3	.0068	19/32 x 1/4 x 13/16	225P68292XD3	.047	21/32 x 27/64 x 13/16	225P47394XD3
.047	11/32 x 1/4 x 45/64	225P47391WD3	.01	19/32 x 1/4 x 13/16	225P10392XD3	.068	13/16 x 31/64 x 13/16	225P68394XD3
.056	3/8 x 9/32 x 45/64	225P56391WD3	.015	19/32 x 1/4 x 13/16	225P15392XD3	.1	27/32 x 17/32 x 13/16	225P10494XD3
.068	3/8 x 9/32 x 45/64	225P68391WD3	.022	19/32 x 1/4 x 13/16	225P22392XD3	.15	13/16 x 31/64 x 1-3/16	225P15494YD3
.082	17/32 x 21/64 x 45/64	225P82391WD3	.033	5/8 x 9/32 x 13/16	225P33392XD3	.22	57/64 x 9/16 x 1-3/16	225P22494YD3
			.047	5/8 x 9/32 x 13/16	225P47392XD3	.33	1 x 47/64 x 1-3/16	225P33494YD3
						.47	1 9/64 x 27/32 x 1-3/16	225P47494YD3

TYPE 418P ORANGE DROP® FILMITE® 'E' CAPACITORS

- Widely used in TV, radio, and allied commercial equipment.
- Combine excellent electrical characteristics, compactness, and low cost.
- "Hockeystick" crimped radial-lead design for easy insertion on printed wiring boards.
- Wound with polyester film and thin gage foil under carefully controlled atmospheric conditions.
- Protected against moisture by wax-free conformal coating of epoxy.
- Designed for operation at temperatures to 85 C.
- May be operated to 125 C with voltage derating.
- Capacitance tolerance, $\pm 10\%$.
- For complete technical data, refer to latest issue of Sprague Engineering Bulletin 2445.



μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.
100 WVDC			200 WVDC			400 WVDC		
.033	.400 x .700	418P33391JD3	.33	.500 x 1.200	418P33491LD3	.039	.400 x .900	418P39392KD3
.039	.400 x .700	418P39391JD3	.39	.550 x 1.600	418P39491MD3	.047	.400 x .900	418P47392KD3
.047	.400 x .700	418P47391JD3	.47	.550 x 1.600	418P47491MD3	.056	.400 x 1.200	418P56392LD3
.056	.400 x .700	418P56391JD3	.56	.650 x 1.600	418P56491MD3	.068	.400 x 1.200	418P68392LD3
.068	.400 x .700	418P68391JD3	.68	.650 x 1.600	418P68491MD3	.082	.450 x 1.200	418P82392LD3
.082	.400 x .900	418P82391KD3	.82	.700 x 1.600	418P82491MD3	.10	.450 x 1.200	418P10492LD3
.10	.400 x .900	418P10491KD3	1.0	.700 x 1.600	418P19591MD3	.12	.500 x 1.200	418P12492LD3
.12	.450 x .900	418P12491KD3	200 WVDC			.15	.500 x 1.200	418P15492LD3
.15	.450 x .900	418P15491KD3	.018	.400 x .700	418P18392JD3	.18	.550 x 1.200	418P18492LD3
.18	.450 x 1.200	418P18491LD3	.022	.400 x .700	418P22392JD3	.22	.550 x 1.200	418P22492LD3
.22	.450 x 1.200	418P22491LD3	.027	.400 x .700	418P27392JD3	.27	.500 x 1.600	418P27492MD3
.27	.500 x 1.200	418P27491LD3	.033	.400 x .900	418P33392KD3	.33	.500 x 1.600	418P33492MD3
						.39	.550 x 1.600	418P39492MD3

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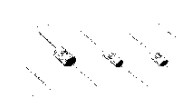
Sprague Capacitors 1972

Type 418P ORANGE DROP Capacitors, continued

μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.	μF	D. x L.	Cat. No.
.47	.550 x 1.600	418P47492MD3	.18	.600 x 1.600	418P18494MD3	.0068	.400 x .700	418P68296KD3
400 WVDC			.22	.600 x 1.600	418P22494MD3	.0082	.400 x .900	418P82296KD3
.0082	.400 x .700	418P82294JD3	.27	.650 x 1.600	418P27494MD3	.010	.400 x .900	418P10396KD3
.010	.400 x .700	418P10394JD3	.33	.650 x 1.600	418P33494MD3	.012	.400 x .900	418P12396KD3
.012	.400 x .700	418P12394JD3	.39	.720 x 1.600	418P39494MD3	.015	.400 x .900	418P15396KD3
.015	.400 x .700	418P15394JD3	.47	.720 x 1.600	418P47494MD3	.018	.450 x .900	418P18396KD3
.018	.400 x .900	418P18394KD3	600 WVDC			.022	.450 x .900	418P22396KD3
.022	.400 x .900	418P22394KD3	.0010	.400 x .700	418P10296JD3	.027	.450 x 1.200	418P27396LD3
.027	.400 x .900	418P27394KD3	.0012	.400 x .700	418P12296JD3	.033	.450 x 1.200	418P33396LD3
.033	.400 x .900	418P33394KD3	.0015	.400 x .700	418P15296JD3	.039	.550 x 1.200	418P39396LD3
.039	.450 x 1.200	418P39394LD3	.0018	.400 x .700	428P18296JD3	.047	.550 x 1.200	418P47396LD3
.047	.450 x 1.200	418P47394LD3	.0022	.400 x .700	418P22296JD3	.056	.600 x 1.200	418P56396LD3
.056	.500 x 1.200	418P56394LD3	.0027	.400 x .700	418P27296JD3	.068	.600 x 1.200	418P68396LD3
.068	.500 x 1.200	418P68394LD3	.0033	.400 x .700	418P33296JD3	.082	.650 x 1.200	418P82396LD3
.082	.550 x 1.200	418P82394LD3	.0039	.400 x .700	418P39296JD3	.10	.650 x 1.200	418P10496LD3
.10	.550 x 1.200	418P10494LD3	.0047	.400 x .700	418P47296JD3	.12	.700 x 1.600	418P12496MD3
.12	.600 x 1.200	418P12494LD3	.0056	.400 x .700	418P56296JD3	.15	.700 x 1.600	418P15496MD3
.15	.600 x 1.200	418P15494LD3				.18	.800 x 1.600	418P18496MD3
						.22	.800 x 1.600	418P22496MD3

Type 431P METFILM "E" Capacitors

- Unique Construction Gives Definite Space Advantages Over Metal-Encased, Molded, or Wax-Coated Cardboard-Case Tubulars of Comparable Ratings.
- Axial-Lead Polyester-Film Capacitor Section Protected Against Moisture By An Outer Wrap of Polyester-Film Tape.
- An Improved End Seal of a Plastic Resin Which Bonds With the Film Wrap and the Tinned Leads Provides Superior Humidity Resistance.
- Because of Their Small Size, These Capacitors Are Particularly Well-Suited For Polting or Encapsulating in Electronic Sub-Assemblies.
- For Complete Technical Data, Refer to The Latest Issue of Sprague Engineering Bulletin 2445.
- Call Your Sprague Industrial Distributor For Current Quantity Prices.

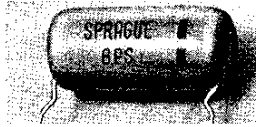


μF	T. x W. x L.	Cat. No.	μF	T. x W. x L.	Cat. No.	μF	T. x W. x L.	Cat. No.
50 WVDC			.15	7/32 x 11/32 x 3/4	431P15492	.15	5/16 x 17/32 x 1	431P15494
.047	3/32 x 3/16 x 5/8	431P4739R5	.22	1/4 x 13/32 x 3/4	431P22492	.22	13/32 x 19/32 x 1	431P22494
.068	1/8 x 7/32 x 5/8	431P6839R5	.33	7/32 x 13/32 x 1	431P33492	.33	11/32 x 9/16 x 1-1/2	431P33494
.10	5/32 x 7/32 x 5/8	431P1049R5	.47	7/32 x 13/32 x 1-1/4	431P47492	.47	3/8 x 9/16 x 1-3/4	431P47494
.15	3/16 x 1/4 x 5/8	431P1549R5	.68	5/16 x 17/32 x 1	431P68492	.68	15/32 x 21/32 x 1-3/4	431P68494
.22	5/32 x 9/32 x 3/4	431P2249R5	1.0	5/16 x 17/32 x 1-1/4	431P10592	1.0	1/2 x 23/32 x 2	431P10594
.33	3/16 x 5/16 x 3/4	431P3349R5	1.5	11/32 x 9/16 x 1-1/2	431P15592	1.5	1/2 x 25/32 x 2-1/2	431P15594
.47	3/16 x 5/16 x 1	431P4749R5	2.0	3/8 x 9/16 x 1-3/4	431P20592	600 WVDC		
.68	3/16 x 3/8 x 1	431P6849R5	2.5	15/32 x 21/32 x 1-1/2	431P25592	.0015	3/32 x 3/16 x 5/8	431P15296
1.0	1/4 x 13/32 x 1	431P1059R5	3.0	15/32 x 21/32 x 1-3/4	431P30592	.0022	1/8 x 3/16 x 5/8	431P22296
1.5	9/32 x 1/2 x 1	431P1559R5	4.0	17/32 x 3/4 x 1-3/4	431P40592	.0033	5/32 x 7/32 x 5/8	431P33296
2.0	3/8 x 9/16 x 1	431P2059R5	5.0	15/32 x 3/4 x 2-1/4	431P50592	.0047	1/8 x 1/4 x 3/4	431P47296
2.5	11/32 x 17/32 x 1-1/4	431P2559R5	6.0	15/32 x 25/32 x 2-1/2	431P60592	.0068	5/32 x 9/32 x 3/4	431P68296
3.0	3/8 x 19/32 x 1-1/4	431P3059R5	7.0	3/4 x 15/16 x 1-3/4	431P70592	.01	3/16 x 5/16 x 3/4	431P10396
4.0	3/8 x 19/32 x 1-1/2	431P4059R5	10.0	23/32 x 1 x 2-1/4	431P10692	.015	3/16 x 3/8 x 3/4	431P15396
5.0	13/32 x 19/32 x 1-3/4	431P5059R5	12.0	23/32 x 1 x 2-1/2	431P12692	.022	1/4 x 13/32 x 3/4	431P22396
6.0	15/32 x 11/16 x 1-1/2	431P6059R5	400 WVDC			.033	7/32 x 3/8 x 1	431P33396
7.0	15/32 x 11/16 x 1-3/4	431P7059R5	.0033	3/32 x 3/16 x 5/8	431P33294	.047	7/32 x 3/8 x 1-1/4	431P47396
10.0	9/16 x 25/32 x 1-3/4	431P1069R5	.0047	1/8 x 3/16 x 5/8	431P47294	.068	5/16 x 1/2 x 1	321P68396
12.0	1/2 x 13/16 x 2-1/4	431P1269R5	.0068	5/32 x 7/32 x 5/8	431P68294	.1	3/8 x 19/32 x 1	431P10496
200 WVDC			.01	3/16 x 1/4 x 5/8	431P10394	.15	3/8 x 19/32 x 1-1/4	431P15496
.015	3/32 x 3/16 x 5/8	431P15392	.015	5/32 x 9/32 x 3/4	431P15394	.22	11/32 x 9/16 x 1-3/4	431P22496
.022	1/8 x 3/16 x 5/8	431P22392	.022	3/16 x 5/16 x 3/4	431P22394	.33	7/16 x 21/32 x 1-3/4	431P33496
.033	1/8 x 7/32 x 5/8	431P33392	.033	7/32 x 11/32 x 3/4	431P33394	.47	9/16 x 3/4 x 1-3/4	431P47496
.047	5/32 x 1/4 x 5/8	431P47392	.047	1/4 x 13/32 x 3/4	431P47394	.68	15/32 x 25/32 x 2-1/2	431P68496
.068	5/32 x 9/32 x 3/4	431P68392	.068	7/32 x 3/8 x 1	431P68394	1.0	3/4 x 31/32 x 2	431P10596
.1	3/16 x 5/16 x 3/4	431P10492	.1	9/32 x 7/16 x 1	431P10494	1.5	3/4 x 1-1/16 x 2-1/2	431P15596

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Sprague Capacitors 1972

DIFILM® ORANGE DROP® DIPPED TUBULARS



- Dual Dielectric (Film-paper) Solidly Impregnated With Exclusive HCX®—Produces Rock-Hard Capacitor Section
- Crimped Wire Leads for Correct Spacing When Mounted On Printed Wiring Boards.
- Outside Foil on All Units Identified by Black Striping
- Double Dipped in Bright Orange Epoxy Resin—Beats Heat and Humidity
- Won't Leak or Drip ● Capacitance Tolerance, ±10%
- For Complete Data, See Latest Issue of Bulletin 2004

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
200 WVDC			
.02	29,64 x 15/16	2PS-S20	
.022	29,64 x 15/16	2PS-S22	220P22392
.047	33,64 x 15/16	2PS-S47	220P47392
.05	33,64 x 15/16	2PS-S50	
.1	35,64 x 1 1/4	2PS-P10	220P10492
.15	5,8 x 1 1/4	2PS-P15	220P15492
.2	43,64 x 1 3/8	2PS-P20	
.22	43,64 x 1 3/8	2PS-P22	220P22492
.25	43,64 x 1 3/8	2PS-P25	
.33	11/16 x 1 11/16	2PS-P33	220P33492
.47	49,64 x 1 11/16	2PS-P47	220P47492
.5	49,64 x 1 11/16	2PS-P50	
400 WVDC			
.01	15,32 x 3/4	4PS-S10	220P10394
.015	33,64 x 3/4	4PS-S15	220P15394
.02	31,64 x 15/16	4PS-S20	
.022	31,64 x 15/16	4PS-S22	220P22394
.025	31,64 x 15/16	4PS-S25	
.03	17,32 x 15/16	4PS-S30	
.033	17,32 x 15/16	4PS-S33	220P33394
.04	33,64 x 1 1/4	4PS-S40	
.047	33,64 x 1 1/4	4PS-S47	220P47394
.05	33,64 x 1 1/4	4PS-S50	
.056	37,64 x 1 1/4	4PS-S56	220P56394
.068	37,64 x 1 1/4	4PS-S68	220P68394
.075	37,64 x 1 1/4	4PS-S75	
.1	41,64 x 1 1/4	4PS-P10	220P10494
.15	43,64 x 1 3/8	4PS-P15	220P15494
.2	43,64 x 1 11/16	4PS-P20	
.22	43,64 x 1 11/16	4PS-P22	220P22494
.25	43,64 x 1 11/16	4PS-P25	
600 WVDC			
.001	25,64 x 3/4	6PS-D10	220P10296
.0012	25,64 x 3/4	6PS-D12	220P12296
.0015	25,64 x 3/4	6PS-D15	220P15296
.0018	25,64 x 3/4	6PS-D18	220P18296
.002	25,64 x 3/4	6PS-D20	
.0022	25,64 x 3/4	6PS-D22	220P22296
.0025	27,64 x 3/4	6PS-D25	
.0027	27,64 x 3/4	6PS-D27	220P27296
.003	27,64 x 3/4	6PS-D30	
.0033	27,64 x 3/4	6PS-D33	220P33296
.0039	29,64 x 3/4	6PS-D39	220P39296

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.004	29,64 x 3/4	6PS-D40	
.0047	29,64 x 3/4	6PS-D47	220P47296
.005	29,64 x 3/4	6PS-D50	
.0056	15,32 x 3/4	6PS-D56	220P56296
.006	15,32 x 3/4	6PS-D60	
.0068	15,32 x 3/4	6PS-D68	220P68296
.0075	15,32 x 3/4	6PS-D75	
.008	29,64 x 15/16	6PS-D80	
.0082	29,64 x 15/16	6PS-D82	220P82296
.01	29,64 x 15/16	6PS-S10	220P10296
.012	31,64 x 15/16	6PS-S12	220P12396
.015	31,64 x 15/16	6PS-S15	220P15396
.02	35,64 x 15/16	6PS-S20	
.022	35,64 x 15/16	6PS-S22	220P22396
.025	35,64 x 15/16	6PS-S25	
.027	17,32 x 1 1/4	6PS-S27	220P27396
.03	17,32 x 1 1/4	6PS-S30	
.033	17,32 x 1 1/4	6PS-S33	220P33396
.035	17,32 x 1 1/4	6PS-S35	
.039	19,32 x 1 1/4	6PS-S39	220P39396
.04	19,32 x 1 1/4	6PS-S40	
.047	19,32 x 1 1/4	6PS-S47	220P47396
.05	19,32 x 1 1/4	6PS-S50	
.056	41,64 x 1 1/4	6PS-S56	220P56396
.06	41,64 x 1 1/4	6PS-S60	
.068	41,64 x 1 1/4	6PS-S68	220P68396
.075	41,64 x 1 1/4	6PS-S75	
.082	11,16 x 1 3/8	6PS-S82	220P82396
.1	11,16 x 1 3/8	6PS-P10	220P10496
.15	47,64 x 1 11/16	6PS-P15	220P15496
.2	27,32 x 1 11/16	6PS-P20	
.22	27,32 x 1 11/16	6PS-P22	220P22496
.25	27,32 x 1 11/16	6PS-P25	
.33	59,64 x 1 11/16	6PS-P33	
.47	1 1/4 x 1 11/16	6PS-P47	
1000 WVDC			
.001	25,64 x 3/4	10PS-D10	220P102910
.0015	13,32 x 3/4	10PS-D15	220P152910
.002	7/16 x 3/4	10PS-D20	
.0022	7/16 x 3/4	10PS-D22	220P222910
.003	7/16 x 15/16	10PS-D30	
.0033	7/16 x 15/16	10PS-D33	220P332910
.004	15,32 x 15/16	10PS-D40	
.0047	15,32 x 15/16	10PS-D47	220P472910
.005	15,32 x 15/16	10PS-D50	
.0068	31,64 x 15/16	10PS-D68	220P682910
.01	35,64 x 15/16	10PS-S10	220P103910
.015	17,32 x 1 1/4	10PS-S15	220P153910

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.022	37,64 x 1 3/8	10PS-S22	220P223910
.033	19,32 x 1 3/8	10PS-S33	220P333910
.039	43,64 x 1 3/8	10PS-S39	220P393910
.047	43,64 x 1 3/8	10PS-S47	220P473910
.056	47,64 x 1 11/16	10PS-S56	220P563910
.068	47,64 x 1 11/16	10PS-S68	220P683910
.082	49,64 x 1 11/16	10PS-S82	220P823910
.1	49,64 x 1 11/16	10PS-P10	220P104910
1600 WVDC			
.0005	1/2 x 7/8	16PS-T50*	
.001	13,32 x 7/8	16PS-D10	220P102916
.0015	7/16 x 7/8	16PS-D15	220P152916
.002	1/2 x 7/8	16PS-D20	
.0022	1/2 x 7/8	16PS-D22	220P222916
.003	7/16 x 1 1/8	16PS-D30	
.0033	7/16 x 1 1/8	16PS-D33	220P332916
.0039	31,64 x 1 1/8	16PS-D39	
.004	31,64 x 1 1/8	16PS-D40	
.0047	31,64 x 1 1/8	16PS-D47	220P472916
.005	31,64 x 1 1/8	16PS-D50	
.006	17,32 x 1 1/8	16PS-D60	
.0068	17,32 x 1 1/8	16PS-D68	220P682916
.007	17,32 x 1 1/8	16PS-D70	
.0075	17,32 x 1 1/8	16PS-D75	
.008	5/8 x 1 5/32	16PS-D80	
.01	5/8 x 1 5/32	16PS-S10	220P103916
.015	21,32 x 1 19/64	16PS-S15	220P153916
.018	3/4 x 1 19/64	16PS-S18	
.02	3/4 x 1 19/64	16PS-S20	
.022	3/4 x 1 19/64	16PS-S22	220P223916
.03	3/4 x 1 39/64	16PS-S30	
.033	3/4 x 1 39/64	16PS-S33	220P333916
.04	27,32 x 1 39/64	16PS-S40	
.047	27,32 x 1 39/64	16PS-S47	220P473916
.05	27,32 x 1 39/64	16PS-S50	
2000 WVDC			
.001	3/8 x 1 1/4	20PS-D10	
.0015	27,64 x 1 1/8	20PS-D15	
.0022	15,32 x 1 1/8	20PS-D22	
.0033	33,64 x 1 1/8	20PS-D33	
.0047	1/2 x 1 3/8	20PS-D47	
.0056	37,64 x 1 3/8	20PS-D56	
.0068	37,64 x 1 3/8	20PS-D68	
.0082	39,64 x 1 3/8	20PS-D82	
.027	51,64 x 1 11/16	20PS-S27	

*Available until present stocks are exhausted.

TYPE 279P ISOFARAD® PLASTIC FILM CAPACITORS

- Isofarad Quality is a Must in Color TV Synchronizer Circuits, Horizontal and Vertical Oscillators, Bridge and Parallel-T Circuits and Other Tuned Circuit Applications Requiring Close Tolerance and Zero Temperature Coefficient of Capacitance
- Superior to Silvered Mica Capacitors, Yet Less Expensive
- Constant Capacitance - Will Not Change More Than ±0.2% from Room Temperature to +80 C at a Maximum Rated Voltage. Will Withstand Operating Temperatures to 85 C (185 F)
- Capacitance Tolerance: ±5%
- For complete data, see latest issue of Engineering Bulletin 2071



μF	WVDC	D. x L.	Cat. No.
.001	500	3/8 x 1	279P10255VB3
.0015	500	3/8 x 1	279P15255VB3
.0022	500	3/8 x 1	279P22255VB3
.0033	500	3/8 x 1	279P33255VB3

μF	WVDC	D. x L.	Cat. No.
.0039	500	3/8 x 1-1/4	279P39255WB3
.0047	500	3/8 x 1-1/4	279P47255WB3
.0068	500	3/8 x 1-1/4	279P68255WB3
.01	500	3/8 x 1-1/4	279P10355WB3

μF	WVDC	D. x L.	Cat. No.
.015	500	7/16 x 1-1/4	279P15355XB3
.022	500	1/2 x 1-1/2	279P23355YB3
.033	500	1/2 x 1-1/2	279P33355YB3
.047	500	5/8 x 1-7/8	279P47355ZB3
.068	500	5/8 x 1-7/8	279P68355ZB3

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IND-REM-43-EBAP

All sizes subject to change without notice.

Sprague Capacitors 1972

Datasheet Provided by
www.33audio.com

DIFILM® BLACK BEAUTY® MOLDED TUBULARS



- Especially developed for long life under high humidity conditions at high temperatures.
- Dual dielectric (polyester film and capacitor tissue) combines the best features of both film and paper capacitors.
- Exclusive HCX® solid impregnant construction results in rock-hard capacitor section. Nothing to leak or drip.
- Tough, non-flammable molded mica-filled plastic case. Won't crack when dropped; soldering won't harm it.
- Every capacitor marked twice. No twisting the case to read ratings.
- Capacitance tolerance, ±10%, except 2TM-MI which is ±20%.
- For complete technical data, see latest issue of Engineering Bulletin 2025.

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
200 WVDC											
.01	5/16 x 1	2TM-S10	160P10392	.0004	5/16 x 1	6TM-T40*	.....	.002	3/8 x 1 1/4	10TM-D20	.....
.02	3/8 x 1 1/4	2TM-S20	.....	.0005	5/16 x 1	6TM-T50*	.....	.0022	3/8 x 1 1/4	10TM-D22	160P222910
.022	3/8 x 1 1/4	2TM-S22	160P22392	.001	5/16 x 1	6TM-D10	160P10296	.003	3/8 x 1 1/4	10TM-D30	.....
.047	3/8 x 1 1/4	2TM-S47	160P47392	.0015	5/16 x 1	6TM-D15	160P15296	.004	3/8 x 1 1/4	10TM-D40	.....
.05	3/8 x 1 1/4	2TM-S50	.....	.002	5/16 x 1	6TM-D20	.....	.0047	3/8 x 1 1/4	10TM-D47	160P472910
.1	7/16 x 1 1/4	2TM-P10	160P10492	.0022	5/16 x 1	6TM-D22	160P22296	.005	3/8 x 1 1/4	10TM-D50	.....
.15	1/2 x 1 1/2	2TM-P15	160P15492	.0025	5/16 x 1	6TM-D25	.....	.0068	3/8 x 1 1/4	10TM-D68	160P682910
.22	5/8 x 1 7/8	2TM-P22	160P22492	.003	5/16 x 1	6TM-D30	.....	.01	7/16 x 1 1/4	10TM-S10	160P103910
.25	5/8 x 1 7/8	2TM-P25	.....	.0033	5/16 x 1	6TM-D33	160P33296	.015	1/2 x 1 1/2	10TM-S15	160P153910
.47	5/8 x 1 7/8	2TM-P47	160P47492	.004	3/8 x 1 1/4	6TM-D40	.....	.02	1/2 x 1 1/2	10TM-S20	.....
.5	5/8 x 1 7/8	2TM-P50	.....	.0047	3/8 x 1 1/4	6TM-D47	160P47296	.022	1/2 x 1 1/2	10TM-S22	160P223910
1.0	3/4 x 2 1/4	2TM-M1	161P10502	.005	3/8 x 1 1/4	6TM-D50	.....	.03	5/8 x 1 7/8	10TM-S30	.....
				.006	3/8 x 1 1/4	6TM-D60	.....	.035	5/8 x 1 7/8	10TM-S35	.....
				.0068	3/8 x 1 1/4	6TM-D68	160P68296	.047	5/8 x 1 7/8	10TM-S47	160P473910
				.008	3/8 x 1 1/4	6TM-D80	.....	.05	5/8 x 1 7/8	10TM-S50	.....
				.01	3/8 x 1 1/4	6TM-S10	160P10396	.068	5/8 x 1 7/8	10TM-S68	160P683910
				.015	3/8 x 1 1/4	6TM-S15	160P15396	.1	3/4 x 2 1/4	10TM-P10	150P104910
				.02	7/16 x 1 1/4	6TM-S20	.....	.15	3/4 x 2 1/4	10TM-P15	160P154910
				.022	7/16 x 1 1/4	6TM-S22	160P22396	1600 WVDC (Buffer)			
				.025	7/16 x 1 1/4	6TM-S25	.....	.0005	3/8 x 1 1/4	MB-T5*	.....
				.03	7/16 x 1 1/4	6TM-S30	.....	.001	3/8 x 1 1/4	MB-D1	160P102916
				.033	7/16 x 1 1/4	6TM-S33	160P33396	.0015	3/8 x 1 1/4	MB-D15	160P152916
				.035	7/16 x 1 1/4	6TM-S35	.....	.002	3/8 x 1 1/4	MB-D2	.....
				.04	1/2 x 1 1/2	6TM-S40	.....	.0022	3/8 x 1 1/4	MB-D22	160P222916
				.047	1/2 x 1 1/2	6TM-S47	160P47396	.003	7/16 x 1 1/4	MB-D3	.....
				.05	1/2 x 1 1/2	6TM-S50	.....	.0033	7/16 x 1 1/4	MB-D33	160P332916
				.06	1/2 x 1 1/2	6TM-S60	.....	.004	1/2 x 1 1/2	MB-D4	.....
				.068	1/2 x 1 1/2	6TM-S68	160P68396	.0047	1/2 x 1 1/2	MB-D47	160P472916
				.1	5/8 x 1 7/8	6TM-P10	160P10496	.005	1/2 x 1 1/2	MB-D5	.....
				.15	5/8 x 1 7/8	6TM-P15	160P15496	.006	1/2 x 1 1/2	MB-D6	.....
				.2	3/4 x 2 1/4	6TM-P20	.....	.0068	1/2 x 1 1/2	MB-D68	160P682916
				.22	3/4 x 2 1/4	6TM-P22	160P22496	.007	1/2 x 1 1/2	MB-D7	.....
				.25	3/4 x 2 1/4	6TM-P25	.....	.0075	1/2 x 1 1/2	MB-D75	.....
				.33	3/4 x 2 1/4	6TM-F33	.....	.008	5/8 x 1 7/8	MB-D8	.....
				.47	1 x 2 1/2	6TM-P47	161P47496	.01	5/8 x 1 7/8	MB-S1	160P103916
				.5	1 x 2 1/2	6TM-P50	.....	.015	5/8 x 1 7/8	MB-S15	160P153916
				1.0	1 x 2 1/2	6TM-M1	.....	.02	5/8 x 1 7/8	MB-S2	.....
				1000 WVDC							
				.0005	5/16 x 1	10TM-T50*	.....	.022	5/8 x 1 7/8	MB-S22	160P223916
				.001	5/16 x 1	10TM-D10	160P102910	.03	3/4 x 2 1/4	MB-S3	.....
				.0015	5/16 x 1	10TM-D15	160P152910	.04	3/4 x 2 1/4	MB-S4	.....
								.05	3/4 x 1 15/16	MB-S5	.....

TYPE 185P HIGH-VOLTAGE TELECAP® DIFILM® CAPACITORS

- Minimize corona effects in high-voltage circuits.
- Axial-lead premolded cases are rugged and non-flammable.
- Higher ripple voltage capability than conventional extended-foil non-inductive capacitors.
- Capacitance tolerance, ±10%.
- For complete data, see latest issue of Engineering Bulletin 2011.

μF	WVDC	D. x L.	Cat. No.	μF	WVDC	D. x L.	Cat. No.	μF	WVDC	D. x L.	Cat. No.
.047	6,000	1 3/8 x 2 3/4	185P473960	.0010	10,000	1 x 2 1/2	185P1029100	.0047	10,000	1 3/8 x 2 3/4	185P4729100
.033	7,000	1 3/8 x 2 3/4	185P333970	.0015	10,000	1 x 2 1/2	185P1529100	.0068	10,000	1 3/8 x 2 3/4	185P6829100
.022	8,000	1 3/8 x 2 3/4	185P223980	.0022	10,000	1 x 2 1/2	185P2229100	.010	10,000	1 3/8 x 2 3/4	185P1039100
.00047	10,000	3/4 x 2 1/4	185P4719100	.0033	10,000	1 x 2 1/2	185P3329100	.015	10,000	1 3/8 x 2 3/4	185P1539100

*Available until present stocks are exhausted.

IND-REM-41-EBAP

All sizes subject to change without notice.

Sprague Capacitors 1972

VITAMIN Q® SUBMINIATURE PAPER CAPACITORS



- Most widely used of all paper capacitors in commercial and military electronic equipment.
- Hermetically sealed in metal cases.
- Electrically and mechanically designed to meet stringent operating requirements.
- Impregnated with Vitamin Q®, a substantially linear, controlled molecular weight hydrocarbon polymer, exclusive with Sprague.
- Vitamin Q impregnation provides higher insulation resistance, longer life than ordinary oils used in conventional capacitors.
- Exceed performance requirements of MIL-C-25A.
- Capacitance tolerance, ±10%. For ±20% tolerance, change 7th character in cat. no. from 9 to 0.
- For complete data, see latest issue of Engineering Bulletin 2110.

μF	WVDC	D. x L.	Cat. No.*	μF	WVDC	D. x L.	Cat. No.*	μF	WVDC	D. x L.	Cat. No.*
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TYPE 91P, INSERTED TAB CONSTRUCTION, 85°C OPERATION

.001	100	.238 x .812	91P10291S4	.015	300	.297 x .812	91P15393S4	1.	400	.463 x 1.437	91P10494S4
	600	.297 x .812	91P10296S4		600	.625 x 1.187	91P10496S4				
.0015	100	.238 x .812	91P15296S4	.022	100	.258 x .812	91P22391S4	.22	100	.463 x 1.187	91P22491S4
	600	.297 x .812	91P15291S4		200	.297 x .812	91P22392S4		200	.463 x 1.437	91P22492S4
.0022	600	.297 x .812	91P22296S4	.033	100	.297 x .812	91P33391S4	.300	300	.625 x 1.187	91P22493S4
	.0033	100	.238 x .812		91P33291S4	400	.375 x .937		91P33396S4	400	.625 x 1.437	91P22494S4
600		.297 x .812	91P33296S4	.047	300	.375 x .937	91P47393S4	.47	600	.625 x 1.937	91P22496S4
.0047	100	.238 x .812	91P47291S4		400	.463 x .937	91P47394S4		100	400	.463 x 1.437	91P47491S4
	600	.297 x .812	91P47296S4	600	.463 x 1.187	91P47396S4	200	.625 x 1.437		91P47492S4	
.0068	600	.297 x .812	91P68296S4	.068	200	.375 x .937	91P68392S4	400	400	.733 x 1.937	91P47494S4
	.01	100	.238 x .812		91P68393S4	300	.463 x .937		91P68393S4	600	.812 x 2.187	91P47496S4
400		.297 x .812	91P10391S4	.1	100	.375 x .937	91P10491S4	1.0	100	.625 x 1.937	91P10591S4
600	.375 x .937	91P10396S4	200		.463 x .937	91P10492S4	200		.733 x 1.937	91P10592S4	
				300	.463 x 1.187	91P10493S4	400	1.062 x 1.937	91P10594S4		

TYPE 96P, INSERTED TAB CONSTRUCTION, 125°C OPERATION

.001	100	.238 x .812	96P10291S4	.015	300	.297 x .812	96P15393S4	.1	600	.625 x 1.187	96P10496S4
	600	.297 x .812	96P10296S4		1000	.625 x 1.687	96P104910S4				
.0015	100	.238 x .812	96P15291S4	.022	100	.258 x .812	96P22391S4	.22	100	.463 x 1.187	96P22491S4
	600	.297 x .812	96P15296S4		200	.297 x .812	96P22392S4		200	.463 x 1.437	96P22492S4
.0022	600	.297 x .812	96P22296S4	.033	100	.297 x .812	96P33391S4	.300	300	.625 x 1.187	96P22493S4
	.0033	100	.238 x .812		96P33291S4	400	.375 x .937		96P33396S4	400	.625 x 1.437	96P22494S4
600		.297 x .812	96P33296S4	.047	300	.375 x .937	96P47393S4	.47	600	.625 x 1.937	96P22496S4
.0047	100	.238 x .812	96P47291S4		400	.463 x .937	96P47394S4		100	400	.625 x 1.187	96P47491S4
	600	.297 x .812	96P47296S4	600	.463 x 1.187	96P47396S4	200	.625 x 1.437		96P47492S4	
.0068	600	.297 x .812	96P68296S4	.068	200	.375 x .937	96P68392S4	400	400	.733 x 1.937	96P47494S4
	.01	100	.238 x .812		96P68393S4	300	.463 x .937		96P68393S4	600	.812 x 2.187	96P47496S4
400		.297 x .812	96P10391S4	.1	100	.375 x .937	96P10491S4	1.0	100	.625 x 1.937	96P10591S4
600	.375 x .937	96P10396S4	200		.463 x .937	96P10492S4	200		.733 x 1.937	96P10592S4	
				300	.463 x 1.187	96P10493S4	400	1.062 x 1.937	96P10594S4		
				400	.463 x 1.437	96P10494S4					

TYPE 191P, EXTENDED FOIL CONSTRUCTION, 85°C OPERATION

.001	600	.297 x .812	191P10296S4	.047	100	.375 x .937	191P47391S4	.22	100	.463 x 1.437	191P22491S4
	.0022	600	.297 x .812		191P22296S4	300	.463 x .937		191P47393S4	200	.625 x 1.187	191P22492S4
.0047		100	.238 x .812	191P47291S4	400	.463 x 1.187	191P47394S4	400	.625 x 1.687	191P22494S4	
	300	.297 x .812	191P47293S4	600	.463 x 1.437	191P47396S4	600	.733 x 1.687	191P22496S4		
.01	100	.297 x .812	191P10391S4	.068	200	.463 x .937	191P68392S4	.33	100	.625 x 1.187	191P33491S4
	600	.375 x .937	191P10396S4		.1	100	.463 x .937		191P10491S4	.47	100	.625 x 1.437	191P47491S4
.015	100	.297 x .812	191P15391S4	200		.463 x 1.187	191P10492S4	200	.625 x 1.687		191P47492S4
	400	.375 x .937	191P15394S4	300	.463 x 1.437	191P10493S4	400	.812 x 2.187	191P47494S4		
.022	300	.375 x .937	191P22393S4	400	.625 x 1.187	191P10494S4	.68	100	.625 x 1.687	191P68491S4	
	600	.463 x .937	191P22396S4	600	.625 x 1.437	191P10496S4					
.033	200	.375 x .937	191P33392S4	.15	200	.463 x 1.437	191P15492S4	1.0	100	.733 x 1.687	191P10591S4
	600	.463 x 1.187	191P33396S4		400	.625 x 1.437	191P15494S4					200	.812 x 2.187	191P10592S4

*Capacitors shown have plastic insulating sleeve. For bare metal case, change last digit in cat. no. from 4 to 2 and subtract .0625" from diameter and length.

Sprague Capacitors 1972

Vitamin-Q Subminiature Paper Capacitors cont.

TYPE 196P, EXTENDED FOIL CONSTRUCTION, 125°C OPERATION

μF	WVDC	D. x L.	Cat. No.*	μF	WVDC	D. x L.	Cat. No.*	μF	WVDC	D. x L.	Cat. No.*
.001	600	.297 x .812	196P10296S4	.039	100	.375 x .937	196P39391S4	.22	100	.463 x 1.437	196P22491S4
.0022	600	.297 x .812	196P22296S4	.047	100	.375 x .937	196P47391S4	200	200	.625 x 1.187	196P22492S4
.0047	100	.238 x .812	196P47291S4	300	300	.463 x .937	196P47393S4	400	400	.625 x 1.687	196P22494S4
	300	.297 x .812	196P47293S4	400	400	.463 x 1.187	196P47394S4	600	600	.733 x 1.687	196P22496S4
				600	600	.463 x 1.437	196P47396S4	1000	1000	.812 x 2.187	196P224910S4
.01	100	.297 x .812	106P10391S4	.056	200	.463 x .937	196P56392S4	.33	100	.625 x 1.187	196P33491S4
	600	.375 x .937	196P10396S4	.068	200	.463 x .937	196P68392S4	.47	100	.625 x 1.487	196P47491S4
	1000	.463 x .937	196P103910S4	.1	100	.463 x .937	196P10491S4	200	200	.625 x 1.687	196P47492S4
.015	100	.297 x .812	196P15391S4	200	200	.463 x 1.187	196P10492S4	400	400	.812 x 2.187	196P47494S4
	400	.375 x .937	196P15394S4	300	300	.463 x 1.437	196P10493S4	600	600	.812 x 2.437	196P47496S4
.022	300	.375 x .937	196P22393S4	400	400	.625 x 1.187	196P10494S4	1000	1000	1.062 x 2.437	196P474910S4
	600	.463 x .937	196P22396S4	600	600	.625 x 1.437	196P10496S4	.68	100	.625 x 1.687	196P68491S4
.027	200	.375 x .937	196P27392S4	1000	1000	.733 x 1.687	196P104910S4	1.0	100	.733 x 1.687	196P10591S4
.033	200	.375 x .937	196P33392S4	.15	200	.463 x 1.437	196P15492S4	200	200	.812 x 2.187	196P10592S4
	600	.463 x 1.187	196P33396S4	400	400	.625 x 1.437	196P15494S4				

*Capacitors shown have plastic insulating sleeve. For bare metal case, change last digit in cat. no. from 4 to 2 and subtract .0625" from diameter and length.

TYPE CP04, CP05 CAPACITORS TO MIL-C-25C



- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Characteristic K Temperature Range (-55°C to +125°C).
- Inserted tab construction for applications where minimum size is needed.
- Available with insulated section (ungrounded case) or with grounded case construction.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Capacitance/voltage range: .033-1.0 μF @ 100 WVDC to .1 μF @ 1000 WVDC.
- Type CP04 has plain metal case.
- For complete listings, refer to Sprague Catalog C-561.
- Type CP05 has insulating sleeve.

TYPE CP08, CP09 CAPACITORS TO MIL-C-25C

- Vitamin Q impregnation assures performance above and beyond MIL-C-25C requirements.
- Extended foil (so-called non-inductive section) construction.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available with insulated section (ungrounded case) or with grounded case construction.
- Capacitance Tolerance ±10%.
- Capacitance/voltage range: .01-.22 μF @ 100 WVDC to .01-.22 μF @ 1000 WVDC.
- Characteristic K Temperature Range (-55°C to +125°C).
- For complete listings, refer to Sprague Catalog C-561.
- Type CP08 has plain metal case.
- Type CP09 has insulating sleeve.

