

# WRAP-AND-FILL METALIZED POLYPHENYLENE SULFIDE FILM CAPACITORS



## FEATURES

- Superior performance
- High efficiency
- High stability
- High reliability
- Rugged construction
- Small size
- Meets the requirements of MIL-PRF-55514 / 13

### MAJOR APPLICATIONS:

Filtering, timing, storage, integrating, and other applications requiring the high stability and low retrace of polyphenylene sulfide.

## PHYSICAL CHARACTERISTICS

### CONSTRUCTION:

Non-inductive wound metalized polyphenylene sulfide.

**CASE:** Flame retardant tape wrap and epoxy endfill.

**LEAD MATERIAL:** Solder coated solid wire.

### LEAD WIRE SIZES:

Case Dia.	Lead AWG
< 0.230	0.020 (No. 24)
< 0.440	0.025 (No. 22)
≥ 0.440	0.032 (No. 20)

### LEAD STRENGTH:

Capable of withstanding a five pound pull force on lead axis.

### MARKING:

Dearborn trademark, type or catalog number, capacitance, tolerance and voltage.

## ELECTRICAL SPECIFICATIONS

**CAPACITANCE RANGE:** 0.01  $\mu$ F to 15.0  $\mu$ F

### VOLTAGE RATING:

- 50 VDC to 200 VDC
- 32 VRMS to 126 VRMS

**CAPACITANCE TOLERANCE:**  $\pm$ 10%,  $\pm$ 5%,  $\pm$ 2%,  $\pm$ 1%

### OPERATING TEMPERATURE:

-55°C to +125°C without derating for DC operation

**AC OPERATION:** Limited to +105°C

**DISSIPATION FACTOR:** 0.15% maximum when measured at 1kHz @ 25°C

**DC VOLTAGE TEST:** 200% of rated voltage for 2 minutes

### INSULATION RESISTANCE:

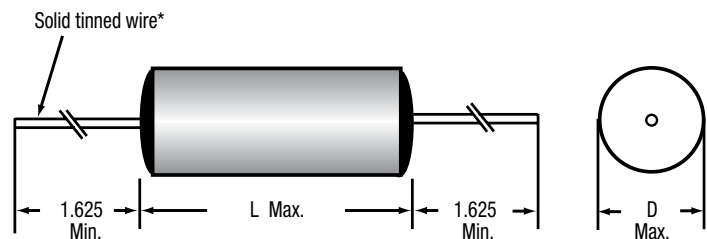
Measure at rated VDC after a 2 minute charge.

- At + 25°C, 50,000 Megaohm-Microfarads, need not exceed 100,000 Megaohms
- At + 85°C, 2,000 Megaohm-Microfarads, need not exceed 4,000 Megaohms
- At + 125°C, 250 Megaohm-Microfarads, need not exceed 500 Megaohms

## MAXIMUM PULSE RISE TIME

Capacitor Length (inch)	Rise Time $dv / dt$ (V / $\mu$ s)		
	50 V	100 V	200 V
0.400	25	35	57
0.530	13	20	38
0.750	7	14	20
1.030	6	9	14
1.250	4	7	11
1.500	-	-	9

## DIMENSIONS (in inches)



\* Leads to be within  $\pm$ 0.062" of center line at egress, but not less than 0.031" from edge.

# WRAP-AND-FILL METALIZED POLYPHENYLENE SULFIDE FILM CAPACITORS

TYPE 842P

## STANDARD RATINGS

Capacitance		Voltage Code 050 50 VDC / 32 VAC*		Voltage Code 100 100 VDC / 63 VAC*		Voltage Code 200 200 VDC / 126 VAC*	
μF	Code	D	L	D	L	D	L
0.010	103	0.17	0.40	0.17	0.40	0.17	0.40
0.015	153	0.17	0.40	0.17	0.40	0.19	0.40
0.022	223	0.17	0.40	0.17	0.40	0.23	0.40
0.033	333	0.17	0.40	0.19	0.40	0.26	0.40
0.047	473	0.17	0.40	0.23	0.40	0.23	0.53
0.068	683	0.17	0.40	0.26	0.40	0.26	0.53
0.10	104	0.23	0.40	0.23	0.53	0.31	0.53
0.15	154	0.23	0.40	0.26	0.53	0.31	0.75
0.22	224	0.26	0.40	0.31	0.53	0.35	0.75
0.33	334	0.26	0.53	0.35	0.53	0.40	0.75
0.47	474	0.31	0.53	0.31	0.75	0.40	1.03
0.68	684	0.35	0.53	0.35	0.75	0.44	1.03
1.00	105	0.31	0.75	0.40	0.75	0.49	1.25
1.50	155	0.35	0.75	0.40	1.03	0.56	1.25
2.00	205	0.40	0.75	0.44	1.03	0.56	1.50
2.70	275	0.35	1.03	0.51	1.03	0.67	1.50
3.00	305	0.40	1.03	0.49	1.25	0.67	1.50
3.90	395	0.44	1.03	0.56	1.25	0.76	1.50
5.00	505	0.49	1.03	0.61	1.25	0.87	2.06
5.60	565	0.49	1.03	0.56	1.50	-	-
6.80	685	0.49	1.25	0.61	1.50	-	-
10.00	106	0.61	1.25	-	-	-	-
15.00	156	0.61	1.50	-	-	-	-

Additional capacitance values, voltages, and tolerances are available upon request.

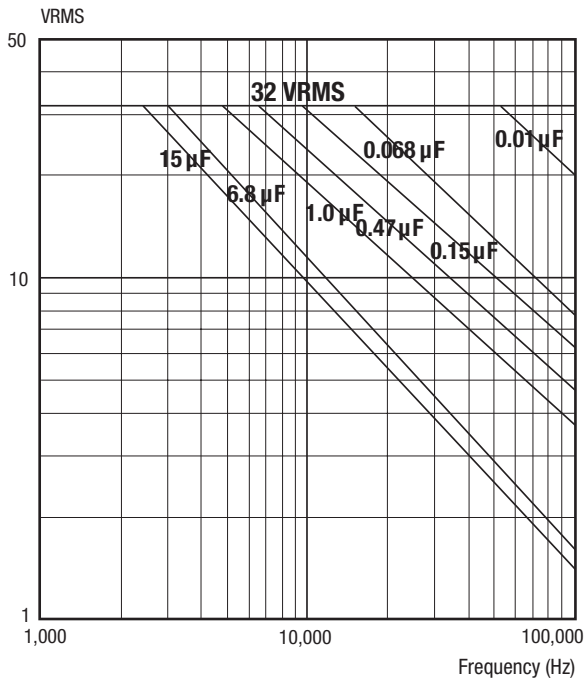
\* AC voltage rating is at 400Hz 1.4 x VRMS + VDC should not exceed the rated VDC.

\* Graphs of AC voltage vs. frequency follow.

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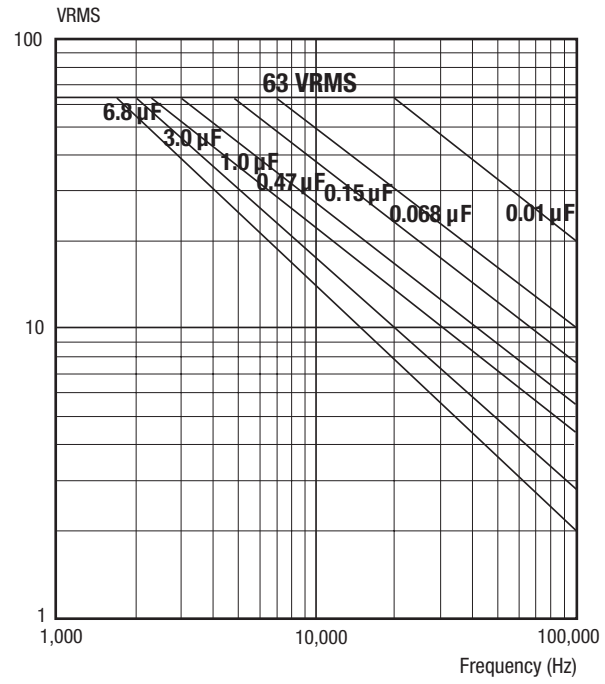
VOLTAGE VS. FREQUENCY TYPE 842P

50 VDC / 32 VAC



VOLTAGE VS. FREQUENCY TYPE 842P

100 VDC / 63 VAC



VOLTAGE VS. FREQUENCY TYPE 842P

200 VDC / 126 VAC

