

METALIZED POLYPHENYLENE SULFIDE METAL-CASE TUBULAR METALIZED PPS FILM CAPACITORS

TYPE 820P



FEATURES

- Superior performance, polycarbonate replacement
- High current
- High Q, low TCC
- High reliability
- Rugged construction
- Small size
- Hermetically sealed
- Meets the requirements of MIL-PRF-39022 / 13

MAJOR APPLICATIONS:

Storage, filtering, timing, integrating, and applications where severe environments require hermetically sealed cases.

PHYSICAL CHARACTERISTICS

CONSTRUCTION:

Non-inductive wound metalized polyphenylene sulfide.

CASE:

Hermetically sealed metal enclosure. Styles and dimensions are in Guide to Ordering section in the front of the catalog.

LEAD MATERIAL:

Solder coated solid wire.

LEAD WIRE SIZES:

Case Dia.	Lead AWG	Case Dia.	Lead AWG
0.175 and 0.195	No. 24	0.235 and 0.312	No. 22
0.400 thru 0.750	No. 20	1.000	No. 18

LEAD PULL: 5 lbs (2.3 kg) for one minute. No physical damage.

LEAD BEND: After three complete consecutive bends. No damage.

MARKING:

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

ELECTRICAL SPECIFICATIONS

CAPACITANCE RANGE:

0.01 μ F to 15.0 μ F

DC VOLTAGE RANGE:

50 VDC to 400 VDC

AC VOLTAGE RANGE:

32 to 240 VRMS

CAPACITANCE TOLERANCE:

$\pm 10\%$, $\pm 5\%$, $\pm 2\%$, $\pm 1\%$

OPERATING TEMPERATURE:

- -55°C to +125°C
- AC operation limited to +105°C

VOLTAGE DERATING:

- At +105°C, 70% of the rating
- At +125°C, 50% of the rating

DISSIPATION FACTOR:

0.15% maximum when measured @ 1kHz @ 25°C

VOLTAGE TEST:

200% of rated voltage for 2 minutes

INSULATION RESISTANCE:

Measured at rated VDC after a 2 minute charge.

- At +25°C, 100,000 Megaohm-Microfarads, need not exceed 200,000 Megaohms
- At +85°C, 6,000 Megaohm-Microfarads, need not exceed 25,000 Megaohms
- At +125°C, 1,000 Megaohm-Microfarads, need not exceed 15,000 Megaohms

MAXIMUM PULSE RISE TIME

Capacitor Length (inch)	Rise Time dv / dt (V / μ s)			
	50 V	100 V	200 V	400 V
0.531	24	-	-	-
0.625	13	27	55	-
0.688	-	20	36	80
0.812	-	17	27	60
0.843	8	-	-	-
0.938	-	13	22	44
1.125	4	10	13	-
1.312	3	7	12	24
1.562	-	5	9	19
1.625	-	-	-	-
1.812	-	4	7	13
1.875	-	-	-	-
2.062	-	-	6	10

METALIZED POLYPHENYLENE SULFIDE METAL-CASE TUBULAR METALIZED PPS FILM CAPACITORS

STANDARD RATINGS

Capacitance		Voltage Code 050 50 VDC / 32 VAC*		Voltage Code 100 100 VDC / 63 VAC*		Voltage Code 200 200 VDC / 126 VAC*		Voltage Code 400 400 VDC / 240 VAC*	
μF	Code	D	L	D	L	D	L	D	L
0.010	103	-	-	0.174	0.625	0.174	0.625	0.235	0.688
0.015	153	-	-	0.174	0.625	0.174	0.625	0.235	0.812
0.022	223	-	-	0.174	0.625	0.193	0.625	0.312	0.688
0.033	333	-	-	0.174	0.625	0.235	0.625	0.312	0.812
0.047	473	0.174	0.531	0.193	0.625	0.235	0.688	0.400	0.812
0.068	683	0.174	0.625	0.235	0.625	0.312	0.625	0.400	0.938
0.10	104	0.174	0.625	0.235	0.688	0.312	0.688	0.400	1.125
0.15	154	0.193	0.625	0.312	0.625	0.312	0.812	0.400	1.312
0.22	224	0.235	0.625	0.312	0.688	0.400	0.812	0.562	1.125
0.33	334	0.312	0.625	0.312	0.812	0.400	0.938	0.562	1.562
0.47	474	0.312	0.625	0.400	0.688	0.400	1.125	0.562	1.812
0.68	684	0.312	0.843	0.400	0.812	0.500	1.125	0.670	1.812
1.00	105	0.312	0.843	0.400	0.938	0.562	1.125	0.750	2.062
1.50	155	0.400	0.843	0.500	0.938	0.562	1.312	1.000	1.812
2.00	205	0.400	0.843	0.500	1.125	0.562	1.812	1.000	2.062
2.70	275	0.400	1.125	0.562	1.312	0.670	1.562	-	-
3.00	305	0.400	1.125	0.562	1.312	0.750	1.562	-	-
4.00	405	0.500	1.125	0.562	1.562	0.750	1.812	-	-
5.00	505	0.500	1.125	0.670	1.312	0.750	2.062	-	-
6.80	685	0.562	1.125	0.670	1.562	-	-	-	-
8.20	825	0.562	1.312	0.670	1.812	-	-	-	-
10.00	106	0.670	1.312	0.750	1.812	-	-	-	-
12.00	126	0.670	1.312	-	-	-	-	-	-
15.00	156	0.750	1.375	-	-	-	-	-	-

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.

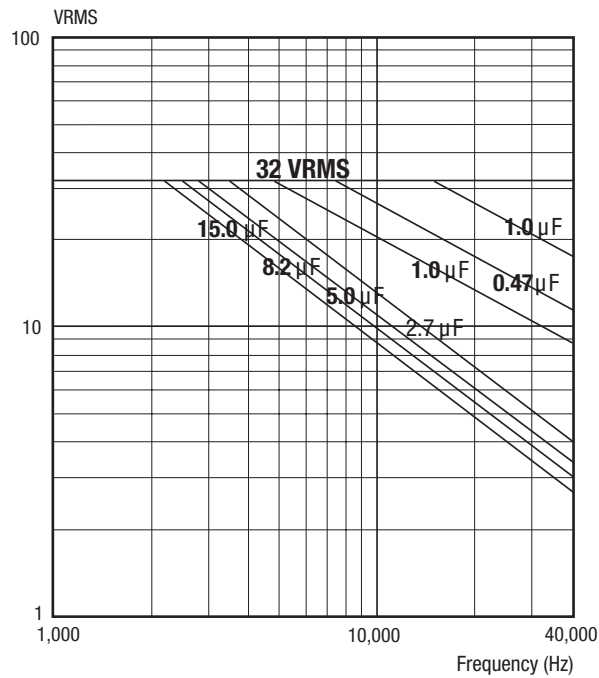
* Graphs of AC voltage vs. frequency follow.

The dimensions shown above are for styles 02, 04 and 13. The dimensions for other styles are included in the general section in the front of the catalog.

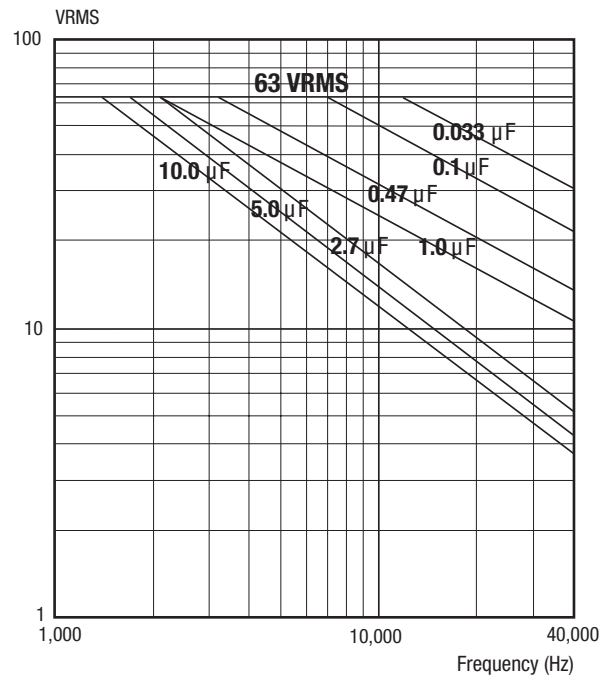
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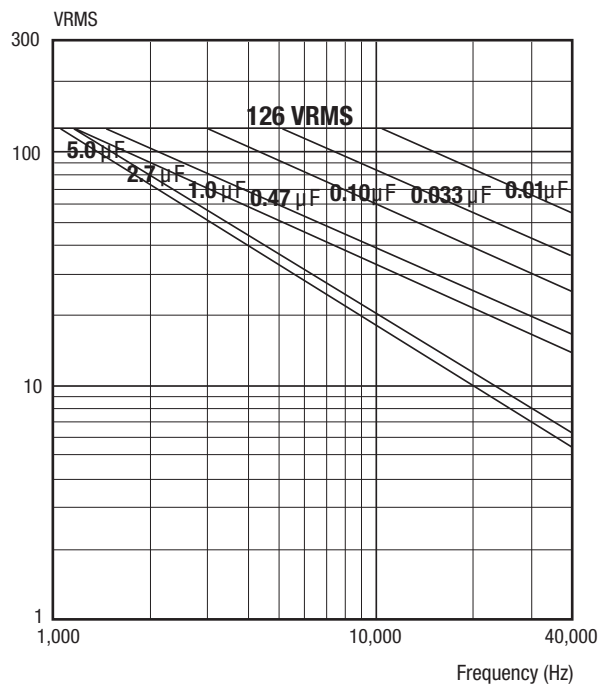
VOLTAGE VS. FREQUENCY TYPE 820P
50 VDC / 32 VAC



VOLTAGE VS. FREQUENCY TYPE 820P
100 VDC / 63 VAC



VOLTAGE VS. FREQUENCY TYPE 820P
200 VDC / 126 VAC



VOLTAGE VS. FREQUENCY TYPE 820P
400 VDC / 240 VAC

