

WRAP-AND-FILL METALIZED POLYPHENYLENE SULFIDE FILM CAPACITORS

TYPE 832P



FEATURES

- High temperature to 125°C
- Superior performance
- High efficiency
- High stability
- High reliability
- Rugged construction
- Small size

MAJOR APPLICATIONS:

Filtering, timing, storage, and integrating circuits.

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) |
| < 0.350 | 0.025 (No. 22) |
| ≥ 0.350 | 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: 0.001 μ F to 10.0 μ F

VOLTAGE RATING:

- 63 VDC to 400 VDC
- 40 VRMS to 200 VRMS

CAPACITANCE TOLERANCE: \pm 10%, \pm 5%, \pm 2%

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 1 minute

INSULATION RESISTANCE:

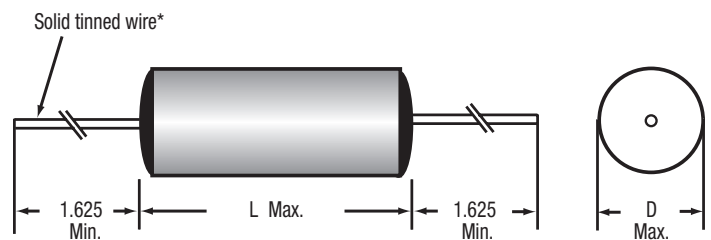
Measure at rated VDC after a 2 minute charge.

- 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 / μ s) | | | |
|-------------------------|-----------------------------------|-------|-------|-------|
| | 63 V | 100 V | 250 V | 400 V |
| 0.440 | 25 | 35 | 57 | 100 |
| 0.560 | 17 | 23 | 38 | 65 |
| 0.750 | 9 | 14 | 20 | 35 |
| 1.000 | 6 | 9 | 14 | 20 |
| 1.250 | 5 | 7 | 11 | 17 |
| 1.310 | 4 | 6 | - | 16 |
| 1.500 | - | 5 | - | - |
| 1.560 | - | - | 6 | - |
| 1.810 | - | - | 5 | 10 |
| 2.060 | - | - | 4 | - |
| 2.310 | - | - | - | 7 |

DIMENSIONS (in inches)



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

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STANDARD RATINGS

| Capacitance | | Voltage Code 063 63 VDC / 40 VAC* | | Voltage Code 100 100 VDC / 63 VAC* | | Voltage Code 250 250 VDC / 160 VAC* | | Voltage Code 400 400 VDC / 200 VAC* | |
|-------------|------|--------------------------------------|-------|---------------------------------------|-------|--|-------|--|-------|
| μF | Code | D | L | D | L | D | L | D | L |
| 0.0010 | 102 | - | - | - | - | 0.170 | 0.440 | 0.190 | 0.440 |
| 0.0015 | 152 | - | - | - | - | 0.170 | 0.440 | 0.190 | 0.440 |
| 0.0022 | 222 | - | - | - | - | 0.170 | 0.440 | 0.190 | 0.440 |
| 0.0033 | 332 | - | - | - | - | 0.170 | 0.440 | 0.230 | 0.440 |
| 0.0047 | 472 | - | - | - | - | 0.170 | 0.440 | 0.230 | 0.440 |
| 0.0068 | 682 | - | - | - | - | 0.170 | 0.440 | 0.230 | 0.560 |
| 0.010 | 103 | 0.170 | 0.440 | 0.170 | 0.440 | 0.190 | 0.560 | 0.230 | 0.560 |
| 0.015 | 153 | 0.170 | 0.440 | 0.170 | 0.440 | 0.190 | 0.560 | 0.230 | 0.750 |
| 0.022 | 223 | 0.170 | 0.440 | 0.190 | 0.440 | 0.190 | 0.560 | 0.310 | 0.750 |
| 0.033 | 333 | 0.170 | 0.440 | 0.190 | 0.440 | 0.230 | 0.560 | 0.310 | 0.750 |
| 0.047 | 473 | 0.170 | 0.440 | 0.190 | 0.560 | 0.230 | 0.560 | 0.400 | 0.750 |
| 0.068 | 683 | 0.170 | 0.560 | 0.230 | 0.560 | 0.270 | 0.560 | 0.400 | 0.750 |
| 0.10 | 104 | 0.190 | 0.560 | 0.230 | 0.560 | 0.310 | 0.560 | 0.400 | 1.000 |
| 0.15 | 154 | 0.230 | 0.440 | 0.310 | 0.560 | 0.310 | 0.750 | 0.400 | 1.250 |
| 0.22 | 224 | 0.230 | 0.560 | 0.250 | 0.750 | 0.350 | 0.750 | 0.500 | 1.250 |
| 0.33 | 334 | 0.250 | 0.560 | 0.310 | 0.750 | 0.370 | 1.000 | 0.550 | 1.310 |
| 0.47 | 474 | 0.310 | 0.560 | 0.370 | 0.750 | 0.400 | 1.000 | 0.550 | 1.810 |
| 0.68 | 684 | 0.310 | 0.560 | 0.400 | 0.750 | 0.450 | 1.000 | 0.650 | 1.810 |
| 1.00 | 105 | 0.310 | 0.750 | 0.400 | 1.000 | 0.550 | 1.000 | 0.750 | 1.810 |
| 1.50 | 155 | 0.350 | 0.750 | 0.450 | 1.000 | 0.500 | 1.250 | 0.900 | 2.310 |
| 2.00 | 205 | 0.400 | 0.750 | 0.450 | 1.000 | 0.550 | 1.810 | 1.000 | 2.310 |
| 2.50 | 255 | 0.400 | 0.750 | 0.500 | 1.250 | - | - | - | - |
| 3.00 | 305 | 0.400 | 1.000 | 0.500 | 1.250 | - | - | - | - |
| 4.00 | 405 | 0.400 | 1.250 | 0.500 | 1.500 | - | - | - | - |
| 5.00 | 505 | 0.500 | 1.250 | 0.600 | 1.310 | - | - | - | - |
| 6.00 | 605 | 0.550 | 1.000 | - | - | - | - | - | - |
| 7.00 | 705 | 0.600 | 1.000 | - | - | - | - | - | - |
| 10.00 | 106 | 0.600 | 1.310 | - | - | - | - | - | - |

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

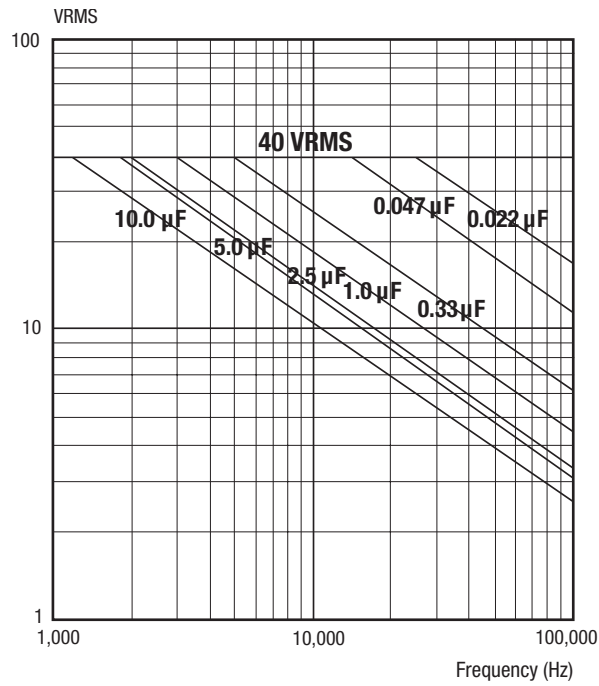
* AC voltage rating is at 400Hz 1.4 x VRMS + VDC should not exceed the rated VDC.

* Graphs of AC voltage vs. frequency follow.

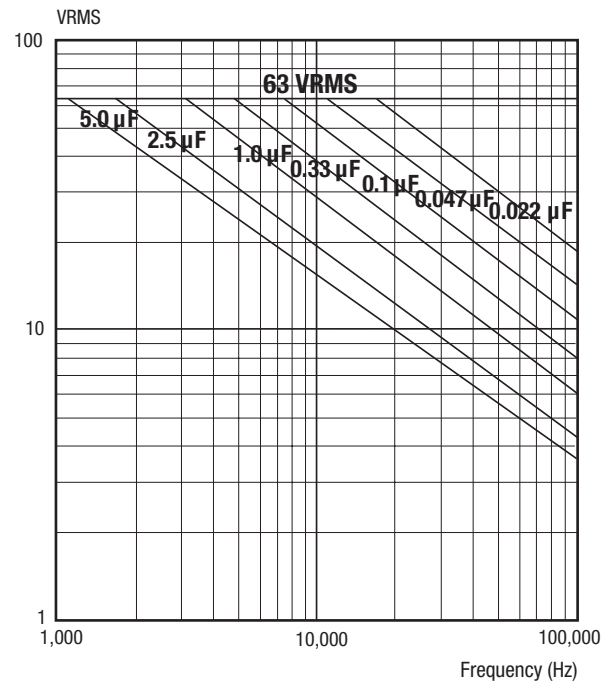
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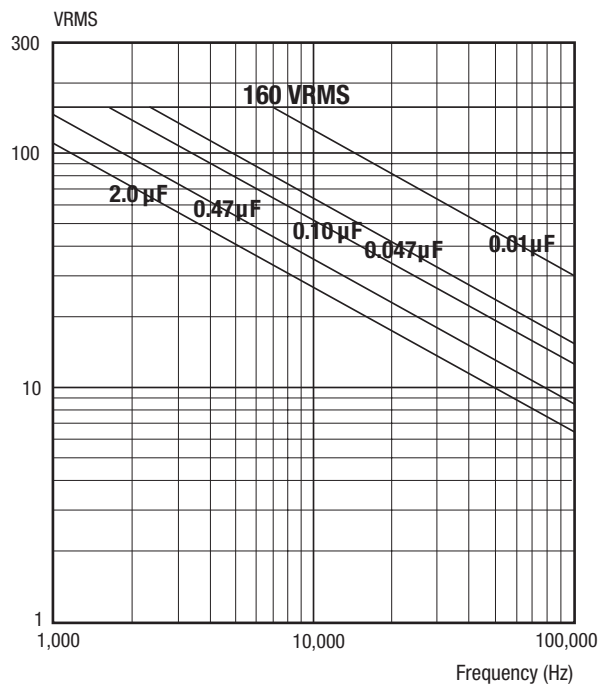
VOLTAGE VS. FREQUENCY TYPE 832P
63 VDC / 40 VAC



VOLTAGE VS. FREQUENCY TYPE 832P
100 VDC / 63 VAC



VOLTAGE VS. FREQUENCY TYPE 832P
250 VDC / 160 VAC



VOLTAGE VS. FREQUENCY TYPE 832P
400 VDC / 200 VAC

