

Not for New Design

**Type 735P** 

**Vishay Sprague** 

# Film Capacitors High Current, Wrap-and-Fill, Metallized Polypropylene



### **PERFORMANCE CHARACTERISTICS**

Operating Temperature: - 55 °C to + 105 °C Capacitance Range: 1.0  $\mu$ F to 30.0  $\mu$ F Capacitance Tolerance:  $\pm$  10 %,  $\pm$  5 % DC Voltage Rating: 100 WVDC to 400 WVDC Equivalent Series Resistance: 20 kHz to 100 kHz Dissipation Factor: 0.1 % maximum Measured at 1000 Hz at + 25 °C  $\Delta$ V/ $\Delta$ T: 10 V/millisecond maximum Voltage Test: 200 % of rated voltage for 2 minutes Insulation Resistance: Measured at 100 WVDC after a 2 minute charge. At + 25 °C: 200 000 Megohm - Microfarads, or 400 000 Megohm minimum

Vibration Test (Condition B): No mechanical damage, short, open or intermittent circuits.

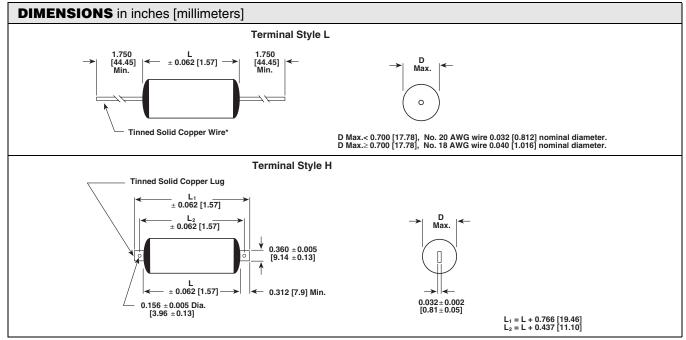
### FEATURES

- · Wire or lug terminals
- High stability
- High ripple to 30 amperes
- Low inductance
- Low ESR

**DC Life Test:** 140 % of rated voltage for 1000 hours at + 105 °C. No visible damage. No open or short circuits. Maximum  $\Delta$  CAP ± 1.0 % Minimum IR = 50 % of initial limit Maximum DF = 0.10 % **Humidity Test:** 95 % relative humidity at + 40 °C for 250 hours. No visible damage. Maximum  $\Delta$  CAP ± 1.0 % Minimum IR = 20 % of initial limit Maximum DF = 0.12 %

### **PHYSICAL CHARACTERISTICS**

# Pull Test: Wire Leads: - 5 pounds (2.3 kilograms) for one minute. No physical damage. Terminal Lugs: - 10 pounds (4.5. kilograms) for one minute. No physical damage. Lead Bend: After three complete consecutive bends, no damage. Marking: Sprague<sup>®</sup> trademark, type or part number, capacitance and voltage.



\* Leads to be within ± 0.062" [1.57 mm] of center line at egress but not less than 0.031" [0.79 mm] from edge (Terminal Style L only).



### Film Capacitors High Current, Wrap-and-Fill, Metallized Polypropylene



### **STANDARD RATINGS** in inches [millimeters] ESR LIMIT MAXIMUM RIPPLE CURRENT (Milliohm) (Amps rms) at 20 kHz - 100 kHz CASE SIZE 20 kHz -Case Temperature at CAPACITANCE PART NUMBER\*\* 100 kHz D + 25 °C + 35 °C + 45 °C + 55 °C + 65 °C + 75 °C + 85 °C (µF) Terminal Style L - Units with Wire Leads 100 WVDC 1.0\* 735P105X9100L 0.531 [13.49] 0.750 [19.05] 15.0 9.2 8.5 7.8 7.0 6.0 4.9 4.5 0.596 [15.14] 0.938 [23.81] 12.0 10.8 10.0 7.0 2.0 735P205X9100L 9.1 8.2 5.8 5.3 735P305X9100L 0.717 [18.21] 0.938 [23.81] 11.0 12.1 10.3 9.2 8.0 6.5 5.9 3.0 11.2 5.0 735P505X9100L 0.733 [18.62] 1.250 [31.75] 10.0 13.8 12.7 10.4 9.0 7.4 6.7 11.6 9.0 8.2 10.0\* 735P106X9100L 0.898 [22.81] 1.500 [38.10] 9.0 15.0 15.014.2 12.7 11.0 20.0 735P206X9100L 1.000 [25.40] 2.250 [57.15] 8.0 15.0 15.0 15.0 15.0 13.6 11.1 10.0 30.0 735P306X9100L 1.200 [30.48] 2.250 [57.15] 6.0 15.0 15.0 15.0 15.0 15.0 12.4 11.4 200 WVDC 1.0\* 735P105X9200L 0.512 [13.01] 1.250 [31.75] 20.0 7.3 7.3 7.3 7.3 7.2 5.9 5.4 2.0\* 735P205X9200L 0.698 [17.73] 1.250 [31.75] 15.0 12.0 12.0 11.3 10.1 8.7 6.5 7.1 3.0 735P305X9200L 0.747 [18.97] 1.500 [38.10] 13.0 15.0 12.6 11.3 9.8 8.0 13.8 7.3 5.0\* 735P505X9200L 0.862 [21.89] 1.750 [44.45] 11.0 15.0 15.0 14.7 13.1 11.4 9.3 8.5 10.0\* 735P106X9200L 1.030 [26.16] 2.250 [57.15] 9.0 15.0 15.0 15.0 15.0 13.8 11.3 10.3 1.440 [36.58] 20.0 735P206X9200L 2.250 [57.15] 6.0 15.0 15.0 15.0 15.0 15.0 14.1 12.8 400 WVDC 1.0\* 735P105X9400L 0.713 [18.11] 1.500 [38.10] 19.0 9.5 9.5 9.5 9.5 9.5 7.8 7.1 2.0\* 735P205X9400L 0.895 [22.73] 1.750 [44.45] 15.0 15.0 15.0 15.0 13.4 11.6 9.5 8.7 3.0\* 1.086 [27.58] 1.750 [44.45] 15.0 10.7 735P305X9400L 12.0 15.0 15.0 15.0 13.1 9.8 15.0 5.0\* 735P505X9400L 1.192 [30.28] 2.250 [57.15] 10.0 15.0 15.0 15.0 15.0 12.5 11.4 10.0\* 735P106X9400L 1.668 [42.37] 2.250 [57.15] 15.0 15.0 15.0 15.0 6.0 15.0 15.0 14.1 Terminal Style H - Units with Terminal Lugs 100 WVDC 0.531 [13.49] 1.0 735P105X9100H 0.875 [22.23] 15.0 10.3 9.5 8.7 7.8 6.7 5.5 5.0 2.0 735P205X9100H 0.596 [15.14] 1.062 [26.97] 12.0 12.0 11.0 10.0 8.9 7.8 6.3 5.8 735P305X9100H 0.717 [18.21] 3.0 1.062 [26.97] 11.0 13.3 12.3 11.2 10.0 8.7 7.1 6.5 735P505X9100H 0.733 [18.62] 5.0 1.375 [34.93] 10.0 14.8 13.7 12.5 11.2 9.7 7.9 7.2 1.625 [41.28] 10.0 735P106X9100H 0.898 [22.81] 9.0 17.8 15.0 13.5 11.7 9.5 8.7 16.5 20.0 735P206X9100H 1.000 [25.40] 2.375 [60.33] 8.0 21.6 20.0 18.3 16.4 14.2 11.6 10.6 30.0 735P306X9100H 1.200 [30.48] 2.375 [60.33] 6.0 24.3 22.5 20.5 18.4 15.9 13.0 11.9 200 WVDC 1.0 735P105X9200H 0.512 [13.00] 7.3 7.3 7.3 7.3 7.3 6.4 5.8 1.375 [34.93] 20.0 2.0 735P205X9200H 0.698 [17.73] 1.375 [34.93] 15.0 14.3 13.3 12.1 10.8 9.4 7.7 7.0 3.0 735P305X9200H 0.747 [18.97] 1.625 [41.28] 13.0 15.9 14.7 13.5 12.0 10.4 8.5 7.8 5.0 735P505X9200H 1.875 [47.63] 11.0 18.3 17.0 15.5 13.9 12.0 9.8 8.9 0.862 [21.89] 1.030 [26.16] 22.4 10.0 735P106X9200H 2.375 [60.33] 9.0 20.7 18.9 16.9 14.6 12.0 10.9 23.2 20.0 735P206X9200H 1.440 [36.58] 2.375 [60.33] 6.0 27.4 25.4 20.7 17.9 14.7 13.4 400 WVDC 9.5 735P105X9400H 0.713 [18.11] 9.5 9.5 9.5 9.5 7.5 1.0 1.625 [41.28] 19.0 8.3 12.3 2.0 735P205X9400H 0.895 [22.73] 1.875 [47.63] 15.0 15.0 15.0 15.0 14.2 10.0 9.1 13.8 3.0 735P305X9400H 1.086 [27.58] 1.875 [47.63] 12.0 21.1 19.5 17.8 15.9 11.3 10.3 22.6 5.0 735P505X9400H 1.192 [30.28] 2.375 [60.33] 10.0 24.4 20.6 18.5 16.0 13.1 11.9 10.0 735P106X9400H 1.668 [42.37] 2.375 [60.33] 6.0 30.0 27.8 25.4 22.7 19.7 16.1 14.7

\* These ratings are stocked.

\*\* Part Numbers listed are for a capacitance tolerance of ± 10 %. To specifiy ± 5 % tolerance, change the "X9" in the Part Number to "X5".

ORDERING INFORMATION				
735P	105	X9	100	L
TYPE	CAPACITANCE This is expressed in picofarads. The first two digits are the significant figures. The	CAPACITANCE TOLERANCE $X9 = \pm 10 \%$ $X5 = \pm 5 \%$	DC VOLTAGE RATING	TERMINAL STYLE
	third is the number of zeros to follow.			



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