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

FEATURES

- Wire or lug terminals
- High stability
- High ripple to 30 A
- Low inductance
- Low ESR
- Compliant to RoHS directive 2002/95/EC

Pb-free
RoHS COMPLIANT

PERFORMANCE CHARACTERISTICS

Operating Temperature: - 55 °C to + 105 °C

Capacitance Range: 1.0 µF to 30.0 µF

Capacitance Tolerance: ± 10 %, ± 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

ΔV/ΔT: 10 V/ms maximum

Voltage Test: 200 % of rated voltage for 2 min

Insulation Resistance: Measured at 100 WVDC after a 2 min charge.
At + 25 °C: 200 000 MΩ/µF, or 400 000 MΩ minimum

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

DC Life Test: 140 % of rated voltage for 1000 h at + 105 °C.
No visible damage. No open or short circuits.
Maximum Δ CAP ± 1.0 %
Minimum IR = 50 % of initial limit
Maximum DF = 0.10 %

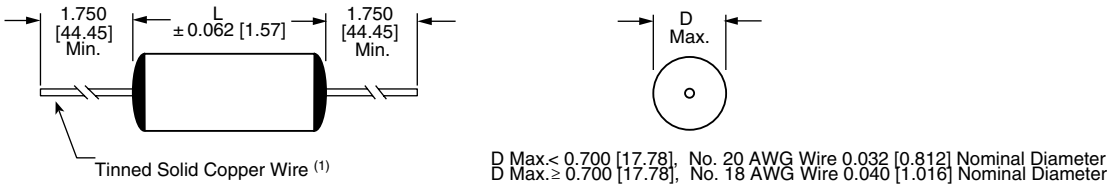
Humidity Test: 95 % relative humidity at + 40 °C for 250 h.
No visible damage.
Maximum Δ CAP ± 1.0 %
Minimum IR = 20 % of initial limit
Maximum DF = 0.12 %

PHYSICAL CHARACTERISTICS

Pull Test:
Wire Leads: - 5 lb (2.3 kg) for one min. No physical damage.
Terminal Lugs: - 10 lb (4.5. kg) for one min. No physical damage.
Lead Bend: After three complete consecutive bends. No damage.
Marking: Sprague® trademark, type or part number, capacitance and voltage.

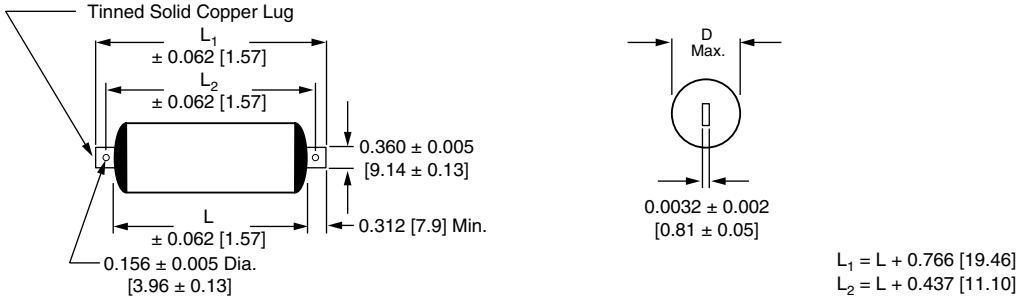
DIMENSIONS in inches [millimeters]

Terminal Style L



D Max.< 0.700 [17.78], No. 20 AWG Wire 0.032 [0.812] Nominal Diameter
D Max.≥ 0.700 [17.78], No. 18 AWG Wire 0.040 [1.016] Nominal Diameter

Terminal Style H



L_1 = L + 0.766 [19.46]
L_2 = L + 0.437 [11.10]

Note (1) 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).

STANDARD RATINGS in inches [millimeters]

CAPACITANCE (µF)	PART NUMBER [1]	CASE SIZE		ESR LIMIT (mΩ) 20 kHz to 100 kHz	MAXIMUM RIPPLE CURRENT (A_{RMS}) at 20 kHz - 100 kHz CASE TEMPERATURE at						
		D	L		+ 25 °C	+ 35 °C	+ 45 °C	+ 55 °C	+ 65 °C	+ 75 °C	+ 85 °C
Terminal Style L - Units with Wire Leads											
100 WVDC											
1.0	V-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
2.0	V-735P205X9100L	0.596 [15.14]	0.938 [23.81]	12.0	10.8	10.0	9.1	8.2	7.0	5.8	5.3
3.0	V-735P305X9100L	0.717 [18.21]	0.938 [23.81]	11.0	12.1	11.2	10.3	9.2	8.0	6.5	5.9
5.0	V-735P505X9100L	0.733 [18.62]	1.250 [31.75]	10.0	13.8	12.7	11.6	10.4	9.0	7.4	6.7
10.0	V-735P106X9100L	0.898 [22.81]	1.500 [38.10]	9.0	15.0	15.0	14.2	12.7	11.0	9.0	8.2
20.0	V-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	V-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	V-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	V-735P205X9200L	0.698 [17.73]	1.250 [31.75]	15.0	12.0	12.0	11.3	10.1	8.7	7.1	6.5
3.0	V-735P305X9200L	0.747 [18.97]	1.500 [38.10]	13.0	15.0	13.8	12.6	11.3	9.8	8.0	7.3
5.0	V-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	V-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
20.0	V-735P206X9200L	1.440 [36.58]	2.250 [57.15]	6.0	15.0	15.0	15.0	15.0	15.0	14.1	12.8
400 WVDC											
1.0	V-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	V-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	V-735P305X9400L	1.086 [27.58]	1.750 [44.45]	12.0	15.0	15.0	15.0	15.0	13.1	10.7	9.8
5.0	V-735P505X9400L	1.192 [30.28]	2.250 [57.15]	10.0	15.0	15.0	15.0	15.0	15.0	12.5	11.4
10.0	V-735P106X9400L	1.668 [42.37]	2.250 [57.15]	6.0	15.0	15.0	15.0	15.0	15.0	15.0	14.1
Terminal Style H - Units with Terminal Lugs											
100 WVDC											
1.0	V-735P105X9100H	0.531 [13.49]	0.875 [22.23]	15.0	10.3	9.5	8.7	7.8	6.7	5.5	5.0
2.0	V-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
3.0	V-735P305X9100H	0.717 [18.21]	1.062 [26.97]	11.0	13.3	12.3	11.2	10.0	8.7	7.1	6.5
5.0	V-735P505X9100H	0.733 [18.62]	1.375 [34.93]	10.0	14.8	13.7	12.5	11.2	9.7	7.9	7.2
10.0	V-735P106X9100H	0.898 [22.81]	1.625 [41.28]	9.0	17.8	16.5	15.0	13.5	11.7	9.5	8.7
20.0	V-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	V-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	V-735P105X9200H	0.512 [13.00]	1.375 [34.93]	20.0	7.3	7.3	7.3	7.3	7.3	6.4	5.8
2.0	V-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	V-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	V-735P505X9200H	0.862 [21.89]	1.875 [47.63]	11.0	18.3	17.0	15.5	13.9	12.0	9.8	8.9
10.0	V-735P106X9200H	1.030 [26.16]	2.375 [60.33]	9.0	22.4	20.7	18.9	16.9	14.6	12.0	10.9
20.0	V-735P206X9200H	1.440 [36.58]	2.375 [60.33]	6.0	27.4	25.4	23.2	20.7	17.9	14.7	13.4
400 WVDC											
1.0	V-735P105X9400H	0.713 [18.11]	1.625 [41.28]	19.0	9.5	9.5	9.5	9.5	9.5	8.3	7.5
2.0	V-735P205X9400H	0.895 [22.73]	1.875 [47.63]	15.0	15.0	15.0	15.0	14.2	12.3	10.0	9.1
3.0	V-735P305X9400H	1.086 [27.58]	1.875 [47.63]	12.0	21.1	19.5	17.8	15.9	13.8	11.3	10.3
5.0	V-735P505X9400H	1.192 [30.28]	2.375 [60.33]	10.0	24.4	22.6	20.6	18.5	16.0	13.1	11.9
10.0	V-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

Notes

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

• Other capacitance values and voltage ratings are available upon request

ORDERING INFORMATION

V-735P	105	X9	100	L
TYPE	CAPACITANCE	CAPACITANCE TOLERANCE	DC VOLTAGE RATING	TERMINAL STYLE
	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.	X9 = ± 10 % X5 = ± 5 %	This is expressed in volts.	L = Wire Leads H = Lugs

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