

Type 735P

Vishay Sprague



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



FEATURES

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

PERFORMANCE CHARACTERISTICS

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

Capacitance Range: 1.0µF to 30.0µF.

Capacitance Tolerance: ± 10%, ± 5%.

DC Voltage Rating: 100 WVDC to 400 WVDC.

Equivalent Series Resistance: 20kHz to 100kHz.

Dissipation Factor: 0.1% maximum.

Measure at 1000Hz @ + 25°C.

ΔV/ΔT: 10V/millisecond maximum.

Voltage Test: 200% of rated voltage for 2 minutes.

Insulation Resistance: Measure 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.

DC Life Test: 140% of rated voltage for 1000 hours @ + 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 @ + 40°C for 250 hours. No visible damage. Maximum Δ CAP ± 1.0%. Maximum 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.

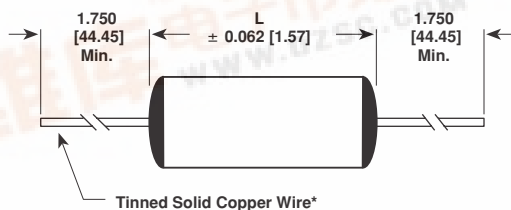
Terminal Lugs - 10 pounds (4.5 kilograms) for one minute. No physical damage.

Lead Bend: After three complete consecutive bends, no damage.

Marking: Sprague® trademark, type or part number, capacitance and voltage.

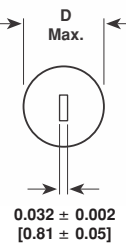
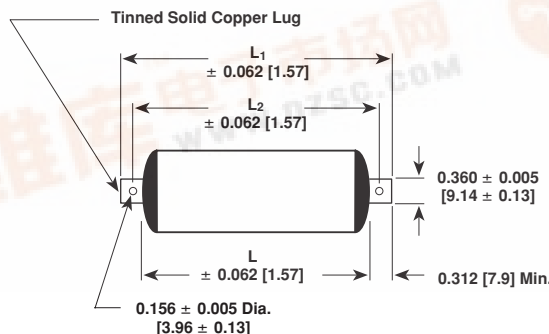
DIMENSIONS in inches [millimeters]

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



L₁ = L + 0.766 [19.46]
L₂ = L + 0.437 [11.10]

Leads to be within ± 0.062" [1.57mm] of center line at egress but not less than 0.031" [0.78mm] from edge (Terminal Style L only).



STANDARD RATINGS in inches [millimeters]													
CAPACITANCE (μ F)	PART NUMBER**	CASE SIZE		ESR LIMIT (Milliohm) 20kHz - 100kHz	MAXIMUM RIPPLE CURRENT (Amps rms) @ 20kHz - 100kHz Case Temperature @								
		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*	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	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	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	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*	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	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	7.1	6.5
3.0	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*	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
20.0	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*	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*	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*	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*	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	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	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	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	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	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	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]	1.375	[34.93]	20.0	7.3	7.3	7.3	7.3	7.3	6.4	5.8
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	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	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
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1.0	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	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	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	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	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 $\pm 10\%$. To specify $\pm 5\%$ tolerance, change the "X9" in the Part Number to "X5".

ORDERING INFORMATION				
735P TYPE	105 CAPACITANCE	X9 CAPACITANCE TOLERANCE	100 DC VOLTAGE RATING	L 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 = $\pm 10\%$ X5 = $\pm 5\%$	This is expressed in volts.	L = Wire Leads H = Lugs



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