

Type 735P, Metallized Polypropylene Film Capacitors

High Frequency, Wrap and Fill



The 735P series is designed and manufactured for use in many demanding power applications. They are non-inductively wound using the most reliable metallized polypropylene film available. A wide range of capacitance values, voltage ratings, lead terminations and sizes offer the designer an array of options to best meet the form, fit and function requirements specified.

Highlights

- Excellent AC performance
- Low power dissipation
- Low dielectric absorption
- Low ESR
- Close tolerance
- High stability
- High ripple to 30 A
- Compliant to RoHS directive 2002/95/EC

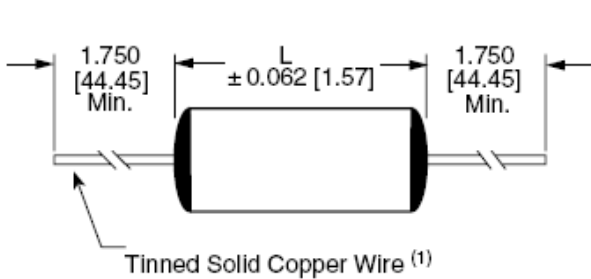
Specifications

Capacitance Range	1.0 to 30.0 μ F
Capacitance Tolerance	\pm 10%, \pm 5%
DC Rated Voltage	100 WVdc to 400 WVdc
Operating Temperature Range	-55 $^{\circ}$ C to 105 $^{\circ}$ C
ESR	20 kHz to 100 kHz
Dissipation Factor	0.1% maximum - Measure all units at 1000 Hz, at +25 $^{\circ}$ C Δ V/ Δ T: 10 V/ms maximum
Insulation Resistance	Measured at 100 WVDC after a 2 min charge: At +25 $^{\circ}$ C: 200 000 M Ω / μ F or 400 000 M Ω minimum
DC Voltage Test	200% of rated voltage for 2 minutes
Vibration Test (Condition B)	No mechanical damage, short, open or intermittent circuits
DC Life Test	140% of rated voltage for 1000 h at +105 $^{\circ}$ C. No open or short circuits. No visible damage. Maximum Δ CAP \pm 1.0% Minimum IR = 50% of initial limit Maximum DF = 0.10%
Humidity Test	95% relative humidity at +40 $^{\circ}$ C for 250 h. No visible damage. Maximum Δ CAP \pm 1.0% Minimum IR = 20% of initial limit Maximum DF = 0.12%
Physical Characteristics	Pull Test Wire Leads: 5 lb (2.3 g) 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 bend. No damage. Marking: Type or part number, capacitance and voltage.
Regulatory Information	

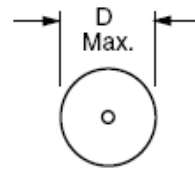
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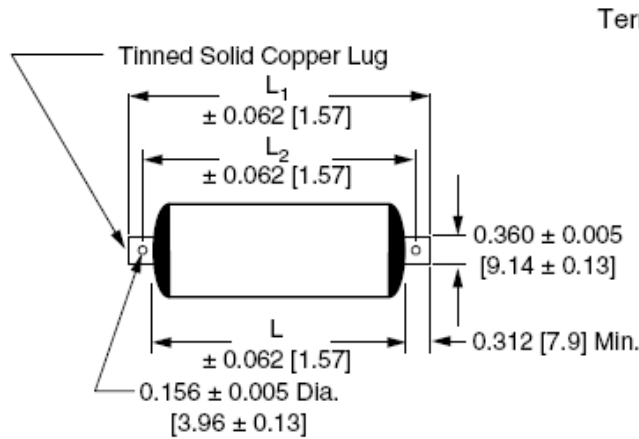
Dimensions



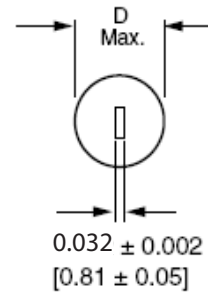
Terminal Style L



1 & 2 μF 100 Vdc ratings are No. 22 AWG wire .025 [.635] Nominal Diameter
 D Max < .700 [17.78], No. 20 AWG wire .032 [.812] Nominal Diameter
 D Max \geq .700 [17.78], No. 18 AWG wire .040 [1.016] Nominal Diameter

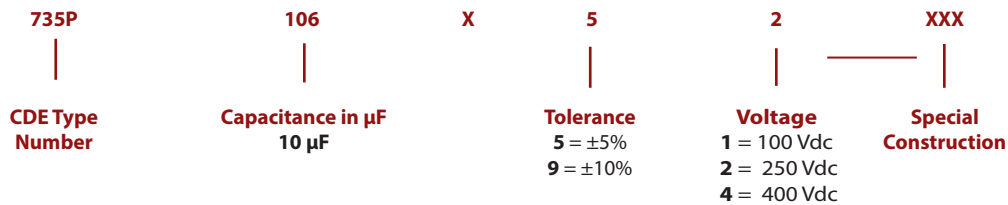


Terminal Style H



$$L1 = L2 + 0.312 (7.9)$$

Part Numbering System



Type 735P, Metallized Polypropylene Film Capacitors

High Frequency, Wrap and Fill

CAP (μ F)	Catalog Part Number	Case Size		ESR (m Ω) 20 KHz to 100 KHz	Maximum Ripple Current (Arms) at 20 KHz Case Temperature ⁽²⁾ at							
		D	L		+25°C	+35°C	+45°C	+55°C	+65°C	+75°C	+85°C	
		Inches [MM]	Inches [MM]									
100 VDC												
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 VDC												
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 VDC												
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												
L2 100 VDC												
1.0	735P105X9100H	0.531 [13.49]	0.875 [22.23]	1.325 (33.66)	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]	1.522 (38.66)	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]	1.522 (38.66)	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]	1.794 (45.60)	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]	2.105 (53.47)	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]	2.841 (72.16)	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]	2.841 (72.16)	6.0	24.3	22.5	20.5	18.4	15.9	13.0	11.9
200 VDC												
1.0	735P105X9200H	0.512 [13.00]	1.375 [34.93]	1.794 (45.60)	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]	1.794 (45.60)	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]	2.054 (52.17)	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]	2.294 (58.27)	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]	2.841 (72.16)	9.0	22.4	20.7	18.9	16.9	14.6	12.0	10.9
20.0	735P206X9200H	1.440 [36.58]	2.375 [60.33]	2.841 (72.16)	6.0	27.4	25.4	23.2	20.7	17.9	14.7	13.4
400 VDC												
1.0	735P105X9400H	0.713 [18.11]	1.625 [41.28]	2.054 (52.17)	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]	2.294 (58.27)	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]	2.294 (58.27)	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]	2.841 (72.16)	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]	2.841 (72.16)	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 $\pm 10\%$. To specify $\pm 5\%$ tolerance, change the "X9" in the Part Number to "X5". (2) The peak current pulse capability of these capacitors is 10 A/ μ F. The maximum rate voltage change is 10 V/ μ s. Other capacitance values and voltage ratings are available upon request

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