

# WRAP-AND-FILL HIGH-CURRENT METALIZED POLYPROPYLENE FILM CAPACITOR



## FEATURES

- Wire or lug terminals
- High stability
- High ripple to 30 A
- Low inductance
- Low ESR
- Approved to MIL-PRF-55514/9

## MAJOR APPLICATIONS:

Specifically designed for SMPS applications, pulse operations, deflection-circuits, high frequency coupling and decoupling, sampling and hold circuits, and other applications where high capacitance, high current, and low ESR are important.

## PHYSICAL CHARACTERISTICS

### CONSTRUCTION:

Non-inductive wound metalized polypropylene.

### CASE:

Flame retardant tape wrap and epoxy endfill.

### LEAD MATERIAL:

Solder coated copper wire.

### LEAD WIRE SIZES:

TERMINAL STYLE L	
Case Dia.	Lead AWG
< 0.700	0.032 (No. 20)
≥ 0.700	0.040 (No. 18)

### LEAD STRENGTH:

Capable of withstanding a five pound pull force on lead axis; lugs will withstand a ten pound pull force on lug axis.

### MARKING:

Dearborn trademark, type or catalog number, capacitance, tolerance and voltage.

## ELECTRICAL SPECIFICATIONS

**Capacitance Range:** 1.0  $\mu$ F to 30.0  $\mu$ F

### Voltage Rating:

- 100 VDC to 400 VDC
- 70 VRMS to 220 VRMS

**Capacitance Tolerance:**  $\pm 20\%$ ,  $\pm 10\%$ ,  $\pm 5\%$

**Operating Temperature:**  $-55^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$

### VOLTAGE DERATING:

- There is no derating for DC operation
- For AC operation derate 70% for applications above  $85^{\circ}\text{C}$

**DISSIPATION FACTOR:** 0.07% maximum

**EQUIVALENT SERIES RESISTANCE:** 20kHz - 100kHz, see standard ratings tables

**DC VOLTAGE TEST:** 200% of rated voltage for 2 minutes

### INSULATION RESISTANCE:

Measure at rated VDC after a 2 minute charge.

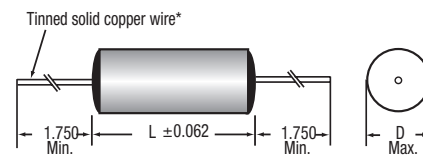
- At  $+25^{\circ}\text{C}$ , 200,000 Megaohm-Microfarads, need not exceed 400,000 Megaohms
- At  $+105^{\circ}\text{C}$ , 1,000 Megaohm-Microfarads, need not exceed 2,000 Megaohms

## MAXIMUM PULSE RISE TIME

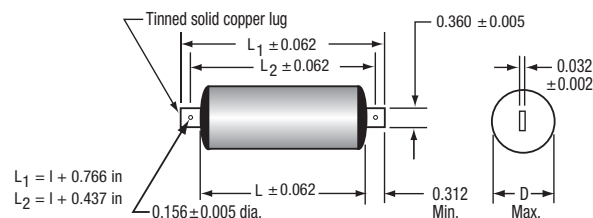
Capacitor Length (inch)	Rise Time $dv / dt$ (V / $\mu$ s)		
	100 VDC / 70 VAC	200 VDC / 140 VAC	400 VDC / 220 VAC
0.750 / 0.875	55	-	-
0.938 / 1.062	33	-	-
1.250 / 1.375	22	33	-
1.500 / 1.625	17	28	44
1.750 / 1.875	-	27	33
2.250 / 2.375	9	20	24

## DIMENSIONS (in inches)

### TERMINAL STYLE L



### TERMINAL STYLE H



# WRAP-AND-FILL HIGH-CURRENT METALIZED POLYPROPYLENE FILM CAPACITOR

TYPE 735P

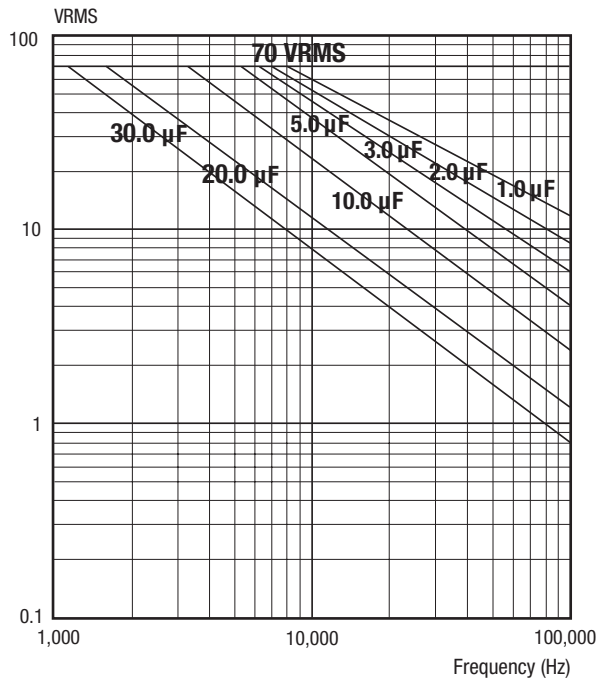
## STANDARD RATINGS

Capacitance		Case Size (inches)		ESR Limit MΩ 20-100kHz	Maximum Ripple Current (Amps) at 20-100kHz Case temperature						
μF	Code	D	L		+25°C	+35°C	+45°C	+55°C	+65°C	+75°C	+85°C
<b>TERMINAL STYLE L - UNIT WITH WIRE LEADS</b>											
<b>100 VDC / 70 VAC* (VOLTAGE CODE 100)</b>											
1	105	0.531	0.750	15	9.2	8.5	7.8	7.0	6.0	4.9	4.5
2	205	0.596	0.938	12	10.8	10.0	9.1	8.2	7.0	5.8	5.3
3	305	0.717	0.938	11	12.1	11.2	10.3	9.2	8.0	6.5	5.9
5	505	0.733	1.250	10	13.8	12.7	11.6	10.4	9.0	7.4	6.7
10	106	0.898	1.500	10	15.0	15.0	14.2	12.7	11.0	9.0	8.2
20	206	1.000	2.250	10	15.0	15.0	15.0	15.0	13.6	11.1	10.0
30	306	1.200	2.250	9	15.0	15.0	15.0	15.0	15.0	12.4	11.4
<b>200 VDC / 140 VAC* (VOLTAGE CODE 200)</b>											
1	105	0.512	1.250	20	7.3	7.3	7.3	7.3	7.2	5.9	5.4
2	205	0.698	1.250	15	12.0	12.0	11.3	10.1	8.7	7.1	6.5
3	305	0.747	1.500	13	15.0	13.8	12.3	11.3	9.8	8.0	7.3
5	505	0.862	1.750	11	15.0	15.0	14.7	13.1	11.4	9.3	8.5
10	106	1.030	2.250	10	15.0	15.0	15.0	15.0	13.8	11.3	10.3
20	206	1.440	2.250	9	15.0	15.0	15.0	15.0	15.0	14.1	12.8
<b>400 VDC / 220 VAC* (VOLTAGE CODE 400)</b>											
1	105	0.713	1.500	19	9.5	9.5	9.5	9.5	9.5	7.8	7.1
2	205	0.895	1.750	15	15.0	15.0	15.0	13.4	11.6	9.5	8.7
3	305	1.086	1.750	14	15.0	15.0	15.0	15.0	13.1	10.7	9.8
5	505	1.192	2.250	12	15.0	15.0	15.0	15.0	15.0	12.5	11.4
10	106	1.668	2.250	9	15.0	15.0	15.0	15.0	15.0	15.0	14.1
<b>TERMINAL STYLE H - UNIT WITH TERMINAL LUGS</b>											
<b>100 VDC / 70 VAC* (VOLTAGE CODE 100)</b>											
1	105	0.531	0.875	15	10.3	9.5	8.7	7.8	6.7	5.5	5.0
2	205	0.596	1.062	12	12.0	11.0	10.0	8.9	7.8	6.3	5.8
3	305	0.717	1.062	11	13.3	12.3	11.2	10.0	8.7	7.1	6.5
5	505	0.733	1.375	10	14.8	13.7	12.5	11.2	9.7	7.9	7.2
10	106	0.898	1.625	10	17.8	16.5	15.0	13.5	11.7	9.5	8.7
20	206	1.000	2.375	10	21.6	20.0	18.3	16.4	14.2	11.6	10.6
30	306	1.200	2.375	9	24.3	22.5	20.5	18.4	15.9	13.0	11.9
<b>200 VDC / 140 VAC* (VOLTAGE CODE 200)</b>											
1	105	0.512	1.375	20	7.3	7.3	7.3	7.3	7.3	6.4	5.8
2	205	0.698	1.375	15	14.3	13.3	12.1	10.8	9.4	7.7	7.0
3	305	0.747	1.625	13	15.9	14.7	13.5	12.0	10.4	8.5	7.8
5	505	0.862	1.875	11	18.3	17.0	15.5	13.9	12.0	9.8	8.9
10	106	1.030	2.375	10	22.4	20.7	18.9	16.9	14.6	12.0	10.9
20	206	1.440	2.375	9	27.4	25.4	23.2	20.7	17.9	14.7	13.4
<b>400 VDC / 220 VAC* (VOLTAGE CODE 400)</b>											
1	105	0.713	1.625	19	9.5	9.5	9.5	9.5	9.5	8.3	7.5
2	205	0.895	1.875	15	15.0	15.0	15.0	14.2	12.3	10.0	9.1
3	305	1.086	1.875	14	21.1	19.5	17.8	15.9	13.8	11.3	10.3
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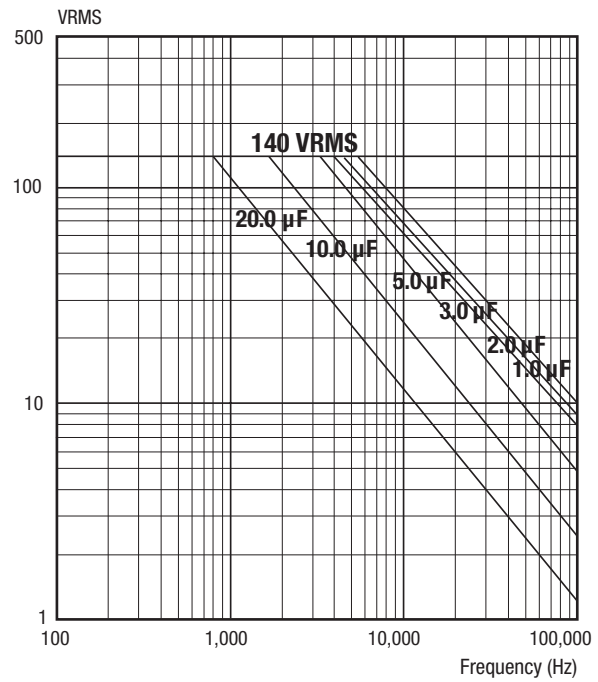
Additional capacitance values, voltages, and tolerances are available upon request.  
 \* AC voltage rating is at 400Hz 1.4 x VRMS + VDC should not exceed the rated VDC.  
 \* Graphs of AC voltage vs. frequency follow.

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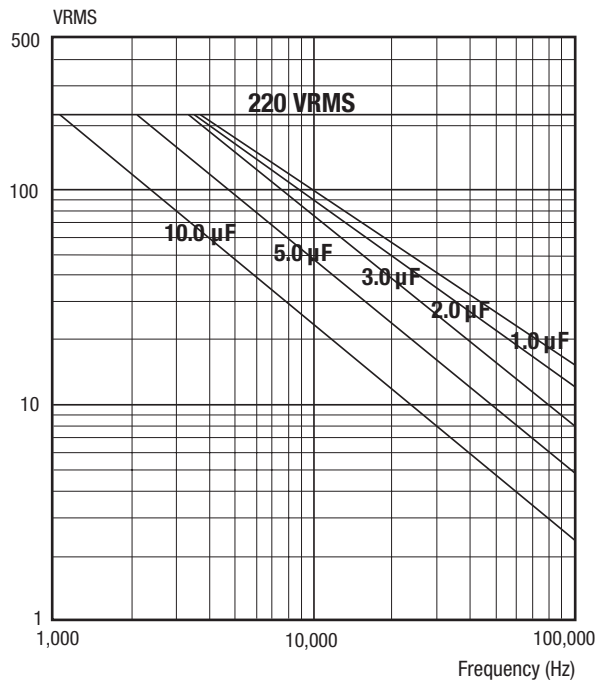
UNIT WITH WIRE LEADS  
VOLTAGE VS. FREQUENCY TYPE 735P  
100 VDC / 70 VAC



UNIT WITH WIRE LEADS  
VOLTAGE VS. FREQUENCY TYPE 735P  
200 VDC / 140 VAC



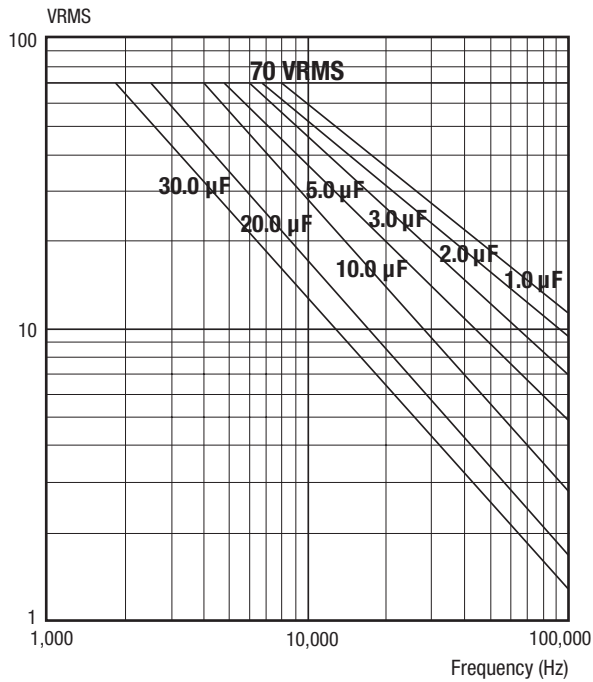
UNIT WITH WIRE LEADS  
VOLTAGE VS. FREQUENCY TYPE 735P  
400 VDC / 220 VAC



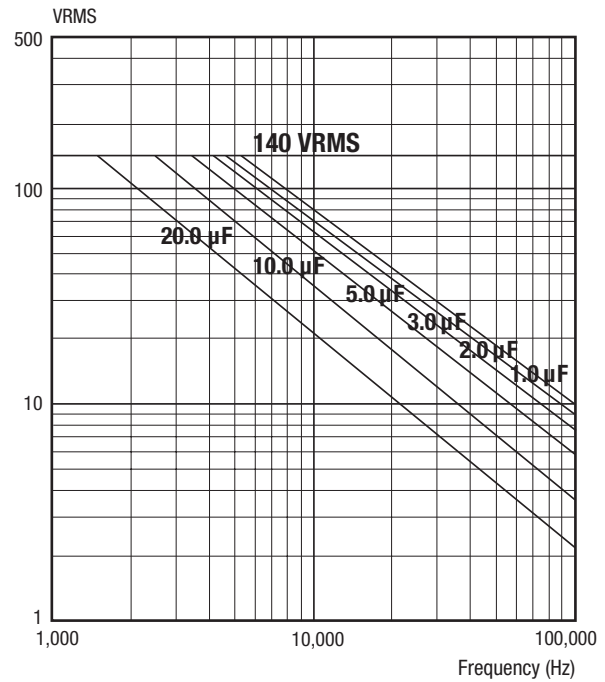
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TYPE 735P

UNIT WITH TERMINAL LUGS  
VOLTAGE VS. FREQUENCY TYPE 735P  
100 VDC / 70 VAC



UNIT WITH TERMINAL LUGS  
VOLTAGE VS. FREQUENCY TYPE 735P  
200 VDC / 140 VAC



UNIT WITH TERMINAL LUGS  
VOLTAGE VS. FREQUENCY TYPE 735P  
400 VDC / 220 VAC

