

# METAL-CASE METALIZED PAPER / POLYESTER FILM CAPACITORS

TYPE 118P



## FEATURES

- Moderate cost
- Small size
- Extensive standard ratings
- Wire leads or tab terminals
- Approved to MIL-PRF-39022 / 01 / 02 / 08

### MAJOR APPLICATIONS:

Bypass, coupling, and filtering.

## PHYSICAL CHARACTERISTICS

### CONSTRUCTION:

Non-inductive wound metalized paper / polyester.

### CASE:

Hermetically sealed metal enclosure. Styles and dimensions are in Guide to Ordering section in the front of the catalog.

### LEAD MATERIAL:

Solder coated solid wire.

### LEAD WIRE SIZES:

Case Dia.	Lead AWG
0.175 and 0.195	No. 24
0.235 and 0.312	No. 22
0.400 and over	No. 20

### LEAD PULL:

5 lbs (2.3 kg) for one minute. No physical damage.

### LEAD BEND:

After three complete consecutive bends. No damage.

### MARKING:

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

## ELECTRICAL SPECIFICATIONS

### CAPACITANCE RANGE:

0.001  $\mu$ F to 12  $\mu$ F

### DC VOLTAGE RATING:

200 VDC to 1,000 VDC

### AC VOLTAGE RATING:

See graphs of AC voltage vs frequency and AC voltage vs. temperature

### CAPACITANCE TOLERANCE:

$\pm$ 20%,  $\pm$ 10%,  $\pm$ 5%

### OPERATING TEMPERATURE:

-55°C to +125°C

### VOLTAGE DERATING:

At +125°C, 50% of +85°C rating

### DISSIPATION FACTOR:

1.0% maximum

### DC VOLTAGE TEST:

200% of rated voltage for 1 minute

### INSULATION RESISTANCE:

Measurements made after a 2 minute charge at rated voltage or 500 VDC, whichever is less.

- At +25°C, 2,000 Megaohm-Microfarads, need not exceed 12,000 Megaohms
- At +125°C, 40 Megaohm-Microfarads, need not exceed 600 Megaohms

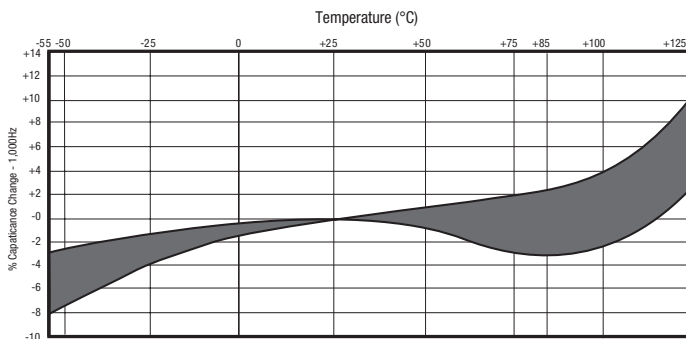
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## STANDARD RATINGS

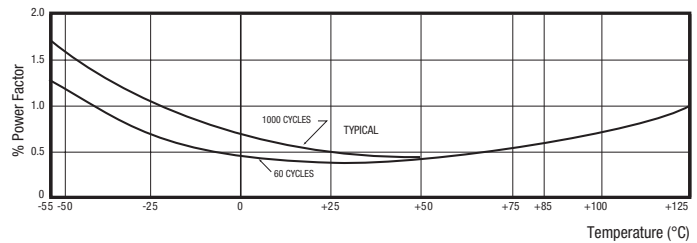
Capacitance		Voltage Code 200 200 VDC		Voltage Code 400 400 VDC		Voltage Code 600 600 VDC		Voltage Code 1K0 1,000 VDC	
μF	Code	D	L	D	L	D	L	D	L
0.0010	102	0.174	0.750	0.235	0.750	0.235	0.750	0.400	0.750
0.0015	153	0.174	0.750	0.235	0.750	0.235	0.750	0.400	0.750
0.0022	222	0.174	0.750	0.235	0.750	0.235	0.750	0.400	0.750
0.0033	332	0.174	0.750	0.235	0.750	0.235	0.750	0.400	0.750
0.0047	472	0.174	0.750	0.312	0.875	0.312	0.875	0.400	0.750
0.0068	682	0.174	0.750	0.312	0.875	0.312	0.875	0.400	0.750
0.010	103	0.174	0.750	0.312	0.875	0.312	0.875	0.400	0.875
0.015	153	0.193	0.750	0.312	0.875	0.312	0.875	0.400	0.875
0.022	223	0.235	0.750	0.312	0.875	0.312	1.125	0.400	1.125
0.033	333	0.235	0.750	0.312	1.125	0.312	1.125	0.400	1.125
0.047	473	0.312	0.875	0.400	1.125	0.400	1.125	0.500	1.125
0.068	683	0.312	0.875	0.400	1.125	0.400	1.125	0.500	1.125
0.10	104	0.312	0.875	0.500	1.125	0.500	1.125	0.562	1.125
0.15	154	0.312	1.125	0.500	1.125	0.562	1.125	0.562	1.125
0.22	224	0.400	0.875	0.562	1.375	0.562	1.375	0.670	1.625
0.33	334	0.400	1.125	0.562	1.625	0.562	1.625	0.670	1.875
0.47	474	0.500	1.125	0.670	1.625	0.670	1.625	0.750	1.875
0.68	684	0.500	1.125	0.670	1.875	0.670	1.875	1.000	1.875
1.00	105	0.562	1.125	0.750	1.875	1.000	1.875	1.000	2.125
1.50	155	0.562	1.625	1.000	1.875	1.000	1.875	1.000	2.625
2.00	205	0.670	1.625	1.000	1.875	1.000	2.125	-	-
3.00	305	0.670	1.875	1.000	2.625	-	-	-	-
4.00	405	0.750	1.875	-	-	-	-	-	-
5.00	505	1.000	1.875	-	-	-	-	-	-
6.00	605	1.000	1.875	-	-	-	-	-	-
8.00	805	1.000	1.875	-	-	-	-	-	-
10.00	106	1.000	2.375	-	-	-	-	-	-
12.00	126	1.000	2.625	-	-	-	-	-	-

Additional capacitance values, voltages and tolerances available upon request.

## ELECTRICAL CHARACTERISTICS VS. TEMPERATURE



Capacitance Change Envelope for 95% Confidence Level

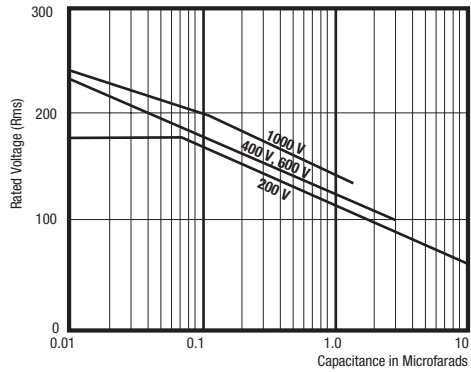


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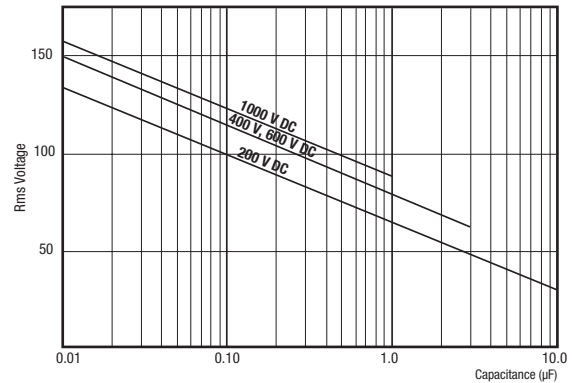
## AC VOLTAGE RATINGS VS. TEMPERATURE

AC VOLTAGE RATINGS AT 400HZ AND 85°C AMBIENT

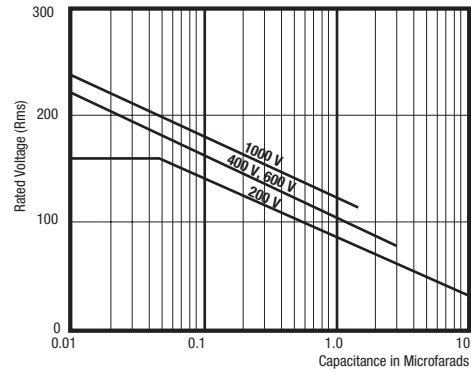


## AC VOLTAGE RATINGS VS. FREQUENCY

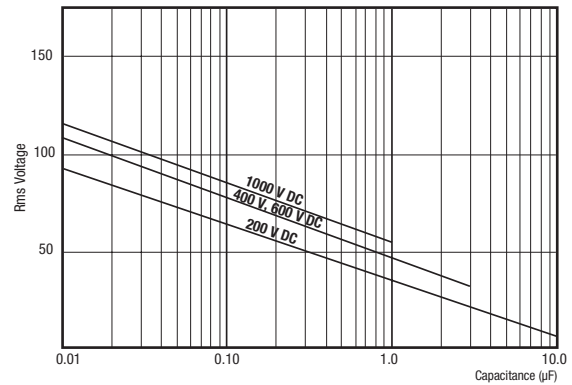
AC RATINGS AT 1,000HZ



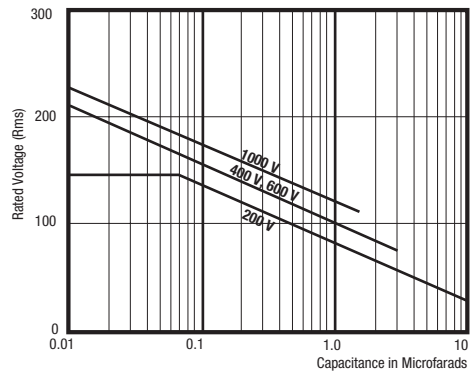
AC VOLTAGE RATINGS AT 400HZ AND 105°C AMBIENT



AC RATINGS AT 2,000HZ



AC VOLTAGE RATINGS AT 400HZ AND 125°C AMBIENT



AC RATINGS AT 2,500HZ

