

Filmlytic

Film Capacitor Alternative to Aluminum Electrolytics

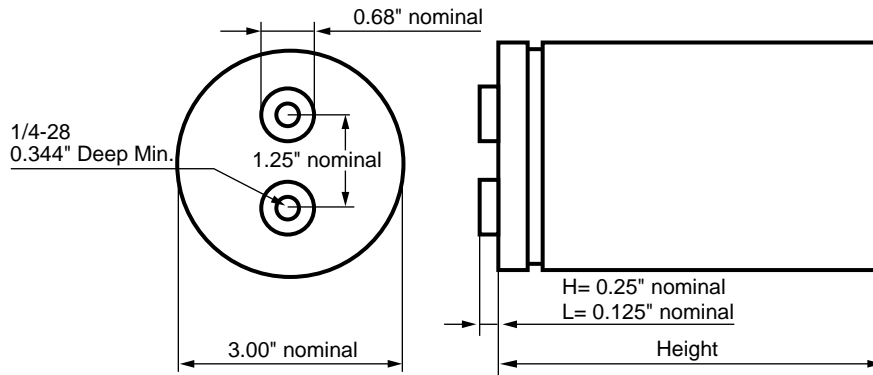
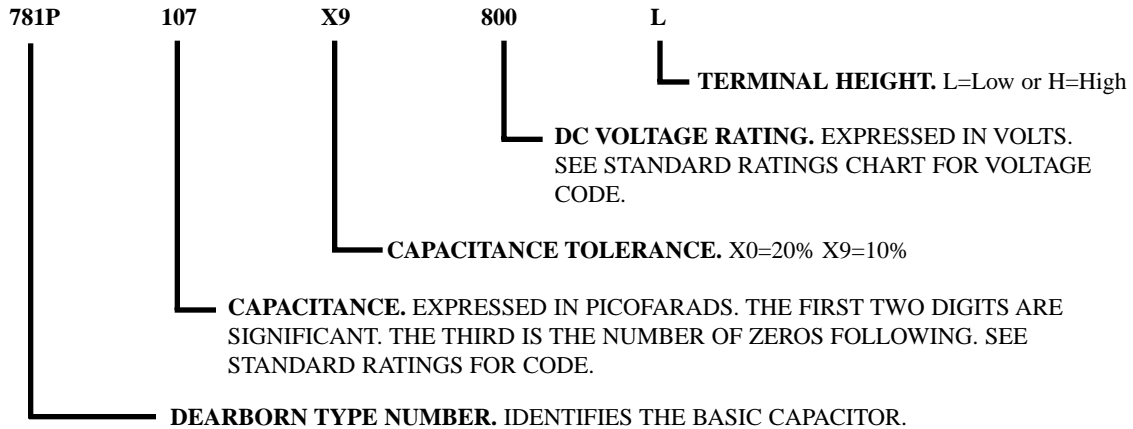


The new *Filmlytic* offers all the advantages of metalized film capacitor technology in values and sizes that until now were only available from aluminum electrolytics. Dearborn specifically designed the *Filmlytic* capacitor series to provide a **non-polar** construction with **greater current density** and **higher over voltage protection**; all in the same package dimensions and terminations as standard electrolytics.

Not only are the *Filmlytics* available in higher voltage ratings, up to 1800 VDC, they have vastly superior performance characteristics over the operating temperature range from -55C to +85C. Their non-impregnated construction eliminates harmful electrolyte leakage making them friendly to surrounding equipment and the environment. This **dry construction** and the self-healing feature of metalized film electrodes, extends useful service life, improves reliability, and provides for a long shelf life.

Maximize your power system design, specify Dearborn's *Filmlytic* in your products and deliver improved reliability, longer life and superior performance to your customers today.

Catalog Numbering System



PHYSICAL CHARACTERISTICS —

Size: See Standard Ratings Table

Construction:

Dry, non-inductively wound metalized film

Case:

Aluminum case with plastic insulating sleeve

Terminals:

High current terminals mounted on a plastic deck

Marking:

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

ELECTRICAL SPECIFICATIONS —

See Standard Ratings Table

Capacitance Tolerance

±20%, ±10%

Capacitance Change

±5% from -55°C to 85°C

Operating Temperature

-55°C to +85°C

Dissipation Factor

1.0% Maximum at 1kHz

DC Voltage Test

140% of rated voltage for 1 minute

Insulation Resistance

Measure at 500VDC after a 10 minute charge

At 25°C, 20,000 Megohm-Microfarads

At 85°C, 2,000 Megohm-Microfarads

781P STANDARD RATINGS TABLE

Capacitance µF Code		Case Height in Inches	Typical ESR (mΩ @ 100kHz)	dv/dt (V/µs)	Max IRMS (Amps)* @ 70°C, 400Hz
600 VOLTS DC (CODE 600)					
200	207	3.2	6.3	8.3	38.8
300	307	4.2	9.1	5.3	53.6
400	407	5.2	11.8	3.9	68.3
800 VOLTS DC (CODE 800)					
120	127	3.2	8.0	10.3	29.4
190	197	4.2	11.1	6.6	42.5
260	267	5.2	13.9	4.8	56.1
900 VOLTS DC (CODE 900)					
85	856	3.2	8.8	12.8	25.2
130	137	4.2	12.4	8.1	36.3
180	187	5.2	16.5	5.9	46.2
1000 VOLTS DC (CODE 1K0)					
60	606	3.2	10.4	15.0	20.9
95	95	4.2	14.9	9.5	30.0
130	137	5.2	19.3	6.9	39.0
1200 VOLTS DC (CODE 1K2)					
45	456	3.2	11.1	18.5	18.5
70	706	4.2	16.6	11.3	25.9
100	107	5.2	21.1	8.2	34.6
1300 VOLTS DC (CODE 1K3)					
35	356	3.2	12.5	20.7	16.2
55	556	4.2	18.6	12.7	22.9
75	756	5.2	24.7	9.2	29.5
1500 VOLTS DC (CODE 1K5)					
28	286	3.2	13.9	23.1	14.4
45	456	4.2	20.3	14.2	20.8
65	656	5.2	25.6	10.2	28.1
1800 VOLTS DC (CODE 1K8)					
18	186	3.2	16.3	30.1	11.6
30	306	4.2	23.9	17.9	17.0
42	426	5.2	31.5	12.7	22.3

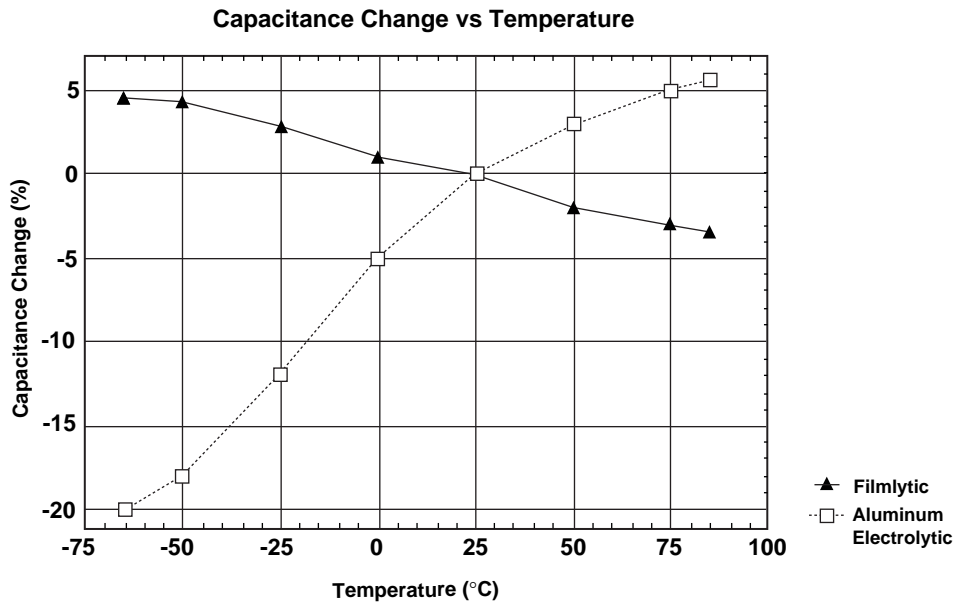
Additional capacitance values and sizes available upon request

Coefficients for Ripple Current

Temperature	25°C	50°C	70°C
	1.7x	1.4x	1x

Frequency Voltage Rating	60Hz	120Hz	400Hz	1kHz
600, 800, 900	0.17x	0.35x	1x	1.58x
1000, 1200	0.14x	0.28x	1x	1.58x
1300, 1500	0.11x	0.22x	1x	1.58x
1800	0.08x	0.16x	1x	1.58x

* e.g. : Ripple current at 50°C, 120Hz for a 200µf 600VDC Filmlytic = 1.4 x 0.35 x 38.8 = 19 Amps Max.



Quality Assurance Testing

INSPECTION: Prior to shipment, *Filmlytics* are 100% inspected for Capacitance value, Dissipation and ESR values, DC Voltage Test, and Insulation Resistance. Sample inspection is then performed to assure that the *Filmlytic* meets Dearborn's exacting standards of workmanship and mechanical performance.

HUMIDITY RESISTANCE: When tested for 250 hours at 40°C and 95% relative humidity in accordance with MIL-STD-202 Method 103B, *Filmlytics* shall not: exhibit visible damage, change in capacitance value by more than 5% of the initial value, have an insulation resistance value lower than 20% of the initial limit, or exhibit a 1KHz DF of greater than 2%.

LIFE TEST: When subjected to 110% of rated voltage at 85°C for 250 hours, *Filmlytics* shall not: exhibit a permanent short or open, change in capacitance value by more than 3% of initial value, have an insulation resistance value less than one third of the initial limit, or have a 1KHz DF greater than 2.5%.

The information presented herein is believed to be accurate and reliable. However, Dearborn Electronics, Inc. assumes no responsibility for its use; nor any infringements of patents or other rights of third parties may result from its use.