



# Low ESR Metallized Polypropylene Film Capacitors

TYPE	DESIGN	CAPACITANCE (mfd)	TOLERANCE	PAGE NO.
P606	Axial Oval Wrap & Fill	1.0 To 30.0	±5% To ±20%	3-140
P608	Axial Round Wrap & Fill	1.0 To 30.0	±5% To ±20%	3-141

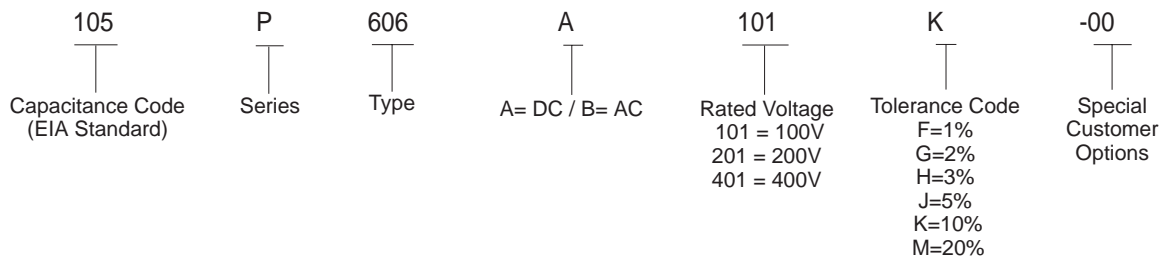
## Features

- 1) Extended foil, non-inductive construction
- 2) Self healing properties
- 3) Low dissipation factor, and very low ESR values
- 4) High insulation and high Q
- 5) Low dielectric absorption
- 6) High current-up to 15 Amps
- 7) Extreme stability
- 8) Special high current termination

## Applications

- 1) HI-Frequency transformer DC blocking
- 2) HI-Current input and output filtering
- 3) HI-Frequency switching power supplies
- 4) HI-AC current and pulse designs
- 5) High Q tuned circuits
- 6) Pulse networks and RC circuits

## Part Numbering System



## Specifications

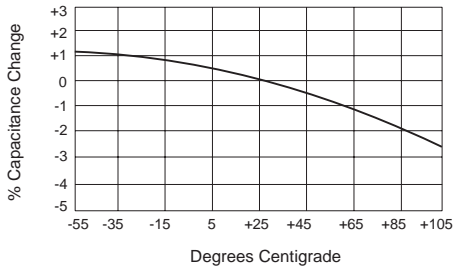
- 1) Operating Temperature Range: -55°C To +105°C with full Rated Voltage applied
- 2) Dissipation Factor: 0.1% Maximum at +25°C and 1Khz
- 3) Rated Voltage: 100VDC, 200VDC, 400VDC
- 4) Dielectric Strength: 200% of rated voltage for 5 seconds
- 5) Insulation Resistance: At +25°C after 2 minutes electrification 100VDC, the minimum IR shall be ≥100,000 Megohms X MFD (sec)
- 6) Equivalent Series Resistance: Maximum ESR in milliohm measured at 100KHz and +25°C
- 7) Dielectric Absorption: 0.05% Maximum dielectric absorption at +25°C
- 8) Capacitance Change: Temperature coefficient -200 (+50, -100) PPM/°C



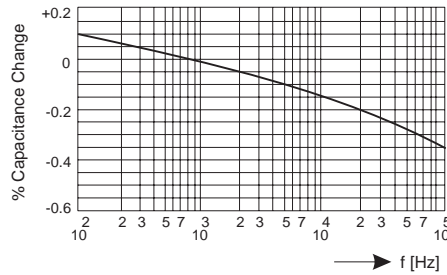
# Low ESR Metallized Polypropylene

TYPE: P606, P608 Series

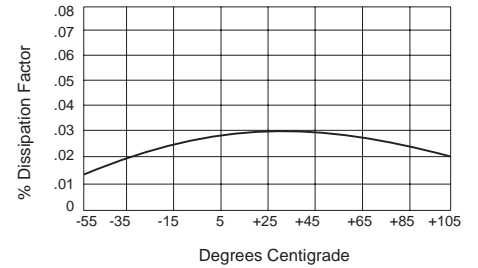
Capacitance Change vs. Temperature At 1KHz



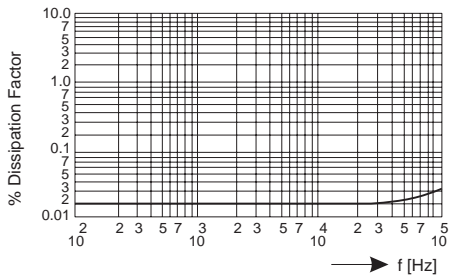
Capacitance Change vs. Frequency (Room Temp.)



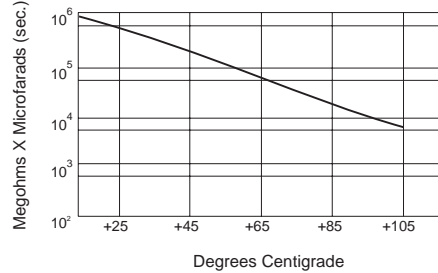
Dissipation Factor vs. Temperature At 1KHz



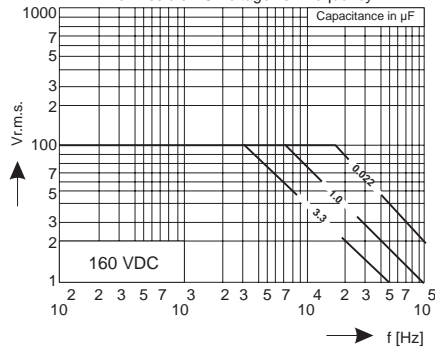
Dissipation Factor vs. Frequency (Room Temp.)



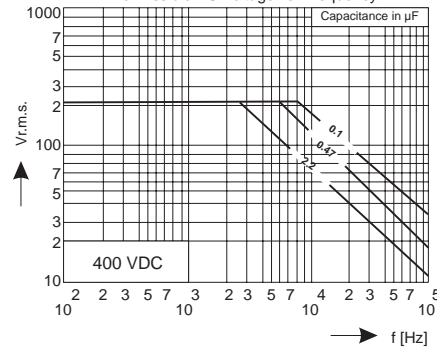
Insulation Resistance vs. Temperature



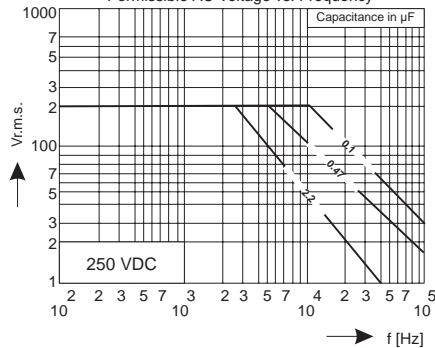
Permissible AC Voltage vs. Frequency



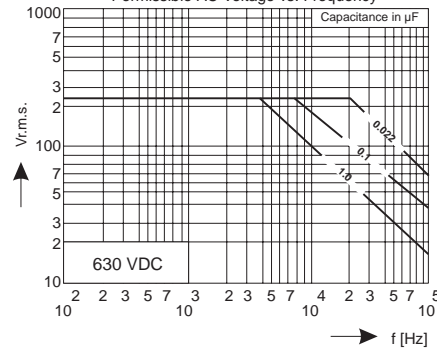
Permissible AC Voltage vs. Frequency



Permissible AC Voltage vs. Frequency



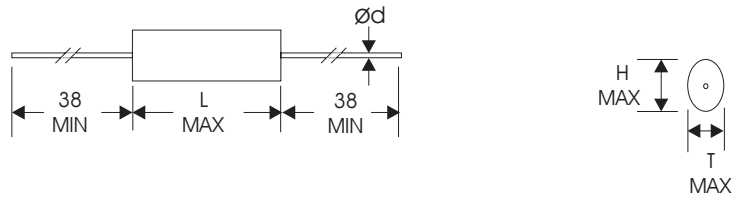
Permissible AC Voltage vs. Frequency





# Low ESR Metallized Polypropylene Axial Oval Wrap & Fill

TYPE: P606 Series



(mm)

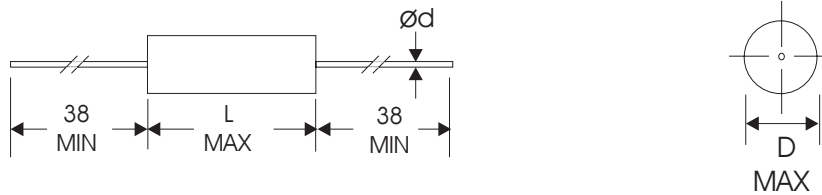
CAP. ( $\mu$ F)	100 VDC					20 - 100KHZ ESR MAX: (milliohms)	RIPPLE CURRENT (Amps RMS) 20 - 100KHZ CASE TEMPERATURE ( $^{\circ}$ C)						
	T	H	L	d	Part No.		+25	+35	+45	+55	+65	+75	+85
1.0	8.5	15.0	19.0	0.8	105P606A101K	15	9.2	8.5	7.8	7.0	6.0	4.9	4.5
2.0	10.0	18.0	24.5	0.8	205P606A101K	12	10.8	10.0	9.1	8.2	7.0	5.8	5.3
3.0	13.5	22.0	24.5	0.8	305P606A101K	11	12.1	11.2	10.3	9.2	8.0	6.5	5.9
5.0	13.5	22.0	32.0	1.0	505P606A101K	10	13.8	12.7	11.6	10.4	9.0	7.4	6.7
10.0	17.5	25.0	38.0	1.0	106P606A101K	9	15.0	15.0	14.2	12.7	11.0	9.0	8.2
20.0	20.0	28.0	58.0	1.0	206P606A101K	8	15.0	15.0	15.0	15.0	13.6	11.1	10.0
30.0	24.5	33.0	58.0	1.0	306P606A101K	6	15.0	15.0	15.0	15.0	15.0	12.4	11.4
CAP. ( $\mu$ F)	200 VDC					20 - 100KHZ ESR MAX: (milliohms)	RIPPLE CURRENT (Amps RMS) 20 - 100KHZ CASE TEMPERATURE ( $^{\circ}$ C)						
	T	H	L	d	Part No.		+25	+35	+45	+55	+65	+75	+85
1.0	9.0	16.0	32.0	0.8	105P606A201K	20	7.3	7.3	7.3	7.3	7.2	5.9	5.4
2.0	12.5	20.0	32.0	0.8	205P606A201K	15	12.0	12.0	11.3	10.1	8.7	7.1	6.5
3.0	13.5	22.0	38.0	1.0	305P606A201K	13	15.0	13.8	12.6	11.3	9.8	8.0	7.3
5.0	17.0	25.0	45.0	1.0	505P606A201K	11	15.0	15.0	14.7	13.1	11.4	9.3	8.5
10.0	21.0	30.0	58.0	1.0	106P606A201K	9	15.0	15.0	15.0	15.0	13.8	11.3	10.3
20.0	30.0	40.0	58.0	1.0	206P606A201K	6	15.0	15.0	15.0	15.0	15.0	14.1	12.8
CAP. ( $\mu$ F)	400 VDC					20 - 100KHZ ESR MAX: (milliohms)	RIPPLE CURRENT (Amps RMS) 20 - 100KHZ CASE TEMPERATURE ( $^{\circ}$ C)						
	T	H	L	d	Part No.		+25	+35	+45	+55	+65	+75	+85
1.0	10.5	19.0	38.0	0.8	105P606A401K	19	9.5	9.5	9.5	9.5	9.5	7.8	7.1
2.0	14.0	23.0	45.0	1.0	205P606A401K	15	15.0	15.0	15.0	13.4	11.6	9.5	8.7
3.0	18.0	26.0	45.0	1.0	305P606A401K	12	15.0	15.0	15.0	15.0	13.1	10.7	9.8
5.0	20.5	30.0	58.0	1.0	505P606A401K	10	15.0	15.0	15.0	15.0	15.0	12.5	11.4
10.0	26.0	36.0	58.0	1.0	106P606A401K	6	15.0	15.0	15.0	15.0	15.0	15.0	14.1

\*Other Values, Voltages, And Dimensions Are Available On Request



# Low ESR Metallized Polypropylene Axial Round Wrap & Fill

TYPE: P608 Series



(mm)

CAP. ( $\mu$ F)	100 VDC				20 - 100KHZ ESR MAX: (milliohms)	RIPPLE CURRENT (Amps RMS) 20 - 100KHZ CASE TEMPERATURE ( $^{\circ}$ C)						
	D	L	d	Part No.		+25	+35	+45	+55	+65	+75	+85
1.0	12.5	19.0	0.8	105P608A101K	15	9.2	8.5	7.8	7.0	6.0	4.9	4.5
2.0	14.5	24.5	0.8	205P608A101K	12	10.8	10.0	9.1	8.2	7.0	5.8	5.3
3.0	18.0	24.5	0.8	305P608A101K	11	12.1	11.2	10.3	9.2	8.0	6.5	5.9
5.0	18.5	32.0	1.0	505P608A101K	10	13.8	12.7	11.6	10.4	9.0	7.4	6.7
10.0	22.5	38.0	1.0	106P608A101K	9	15.0	15.0	14.2	12.7	11.0	9.0	8.2
20.0	25.0	58.0	1.0	206P608A101K	8	15.0	15.0	15.0	15.0	13.6	11.1	10.0
30.0	30.5	58.0	1.0	306P608A101K	6	15.0	15.0	15.0	15.0	15.0	12.4	11.4
CAP. ( $\mu$ F)	200 VDC				20 - 100KHZ ESR MAX: (milliohms)	RIPPLE CURRENT (Amps RMS) 20 - 100KHZ CASE TEMPERATURE ( $^{\circ}$ C)						
	D	L	d	Part No.		+25	+35	+45	+55	+65	+75	+85
1.0	13.0	32.0	0.8	105P608A201K	20	7.3	7.3	7.3	7.3	7.2	5.9	5.4
2.0	17.5	32.0	0.8	205P608A201K	15	12.0	12.0	11.3	10.1	8.7	7.1	6.5
3.0	18.5	38.0	1.0	305P608A201K	13	15.0	13.8	12.6	11.3	9.8	8.0	7.3
5.0	21.5	45.0	1.0	505P608A201K	11	15.0	15.0	14.7	13.1	11.4	9.3	8.5
10.0	26.0	58.0	1.0	106P608A201K	9	15.0	15.0	15.0	15.0	13.8	11.3	10.3
20.0	36.5	58.0	1.0	206P608A201K	6	15.0	15.0	15.0	15.0	15.0	14.1	12.8
CAP. ( $\mu$ F)	400 VDC				20 - 100KHZ ESR MAX: (milliohms)	RIPPLE CURRENT (Amps RMS) 20 - 100KHZ CASE TEMPERATURE ( $^{\circ}$ C)						
	D	L	d	Part No.		+25	+35	+45	+55	+65	+75	+85
1.0	15.0	38.0	0.8	105P608A401K	19	9.5	9.5	9.5	9.5	9.5	7.8	7.1
2.0	19.0	45.0	1.0	205P608A401K	15	15.0	15.0	15.0	13.4	11.6	9.5	8.7
3.0	23.0	45.0	1.0	305P608A401K	12	15.0	15.0	15.0	15.0	13.1	10.7	9.8
5.0	25.0	58.0	1.0	505P608A401K	10	15.0	15.0	15.0	15.0	15.0	12.5	11.4
10.0	33.0	58.0	1.0	106P608A401K	6	15.0	15.0	15.0	15.0	15.0	15.0	14.1

\*Other Values, Voltages, And Dimensions Are Available On Request