

Plain Polypropylene Film Capacitors

Series Code
03

Inductive

Main Application

Oscillator, timing and LC/RC filter circuits, high frequency coupling of fast digital and analog ICs.

Construction

Film/foil inductive type construction with aluminum foil as electrode and PP film as dielectric coated epoxy resin.

Climatic Category

40/100/56

Rated and Maximum Operating Temperature

85°C and 100°C

Applicable Specification

IEC 384-13

Capacitance Value

0.0001µF-0.1 µF

Capacitance Tolerance

±5%, ±10%

Rated Voltage

100VDC-2000VDC

Insulation Resistance

Minimum Insulation Resistance R_{IS}
(or) time constant $T = C_R \times R_{IS}$
(at 100V DC for $100 < V_R < 500V$,
and 500VDC for $V_R > 500V$
temp 20°C, relative humidity ≤70%)

V_R
≤100 V DC
≥250 V DC

$C_R \leq 0.1 \mu F$
100 GΩ
100 GΩ

$C_R > 0.1 \mu F$
10000
10000

Voltage Proof

Between terminals 2 times of rated voltage for 2 sec.

Tan δ

0.08% (maximum) at 1 kHz.

Life Test Conditions

(Loading at elevated temperature)

Loaded at 1.5 times of rated voltage at 85° C or 1.5 times of category voltage. At 100° C for 1000 hours Category voltage is 80% of rated voltage.

After the test

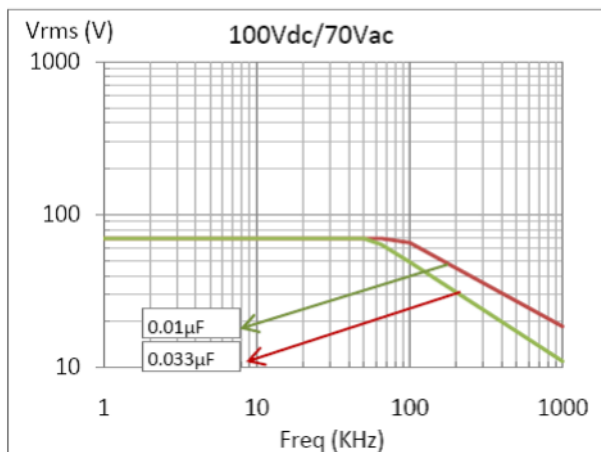
$\Delta C/C \leq 5\%$ of initial value.

Change in Tan δ: ≤ 1.4 times the value measured before the test, whichever is higher.

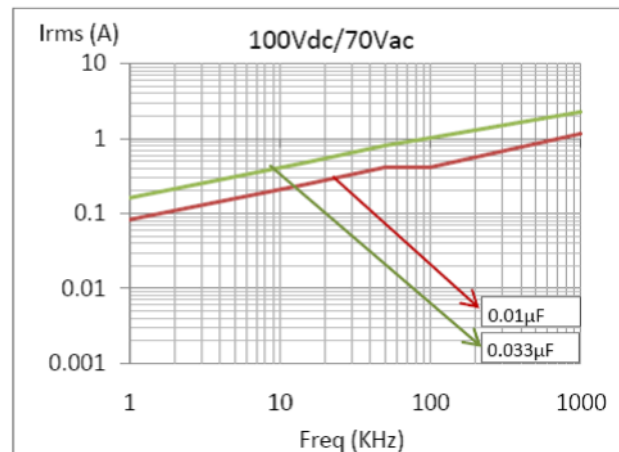
Insulation resistance: ≥ 50% of the value mentioned in IR chart.

Derating graph for Plain Polypropylene Film Capacitors Inductive

Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 85° C)



Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 85° C)



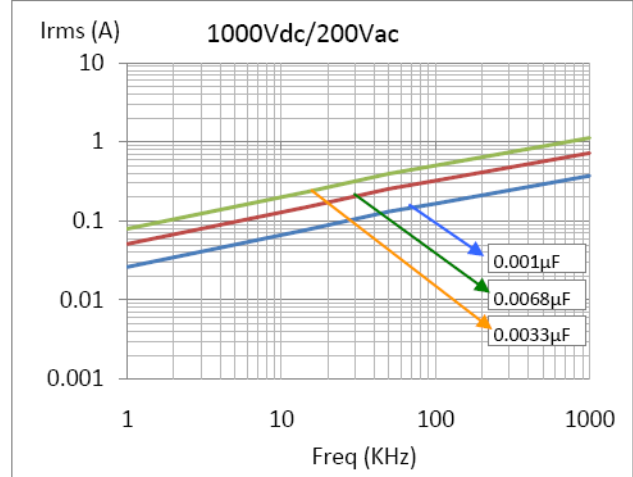
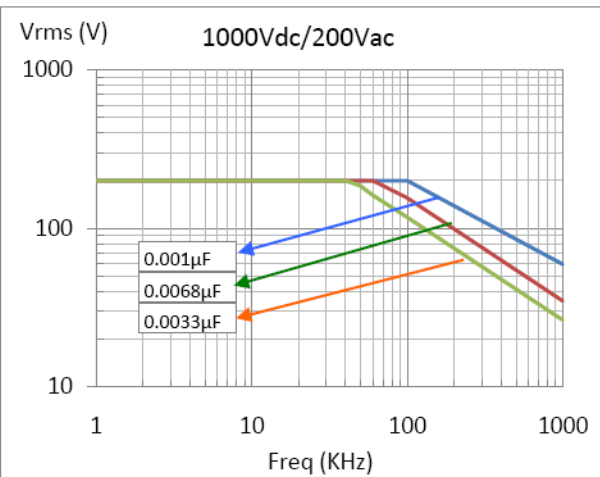
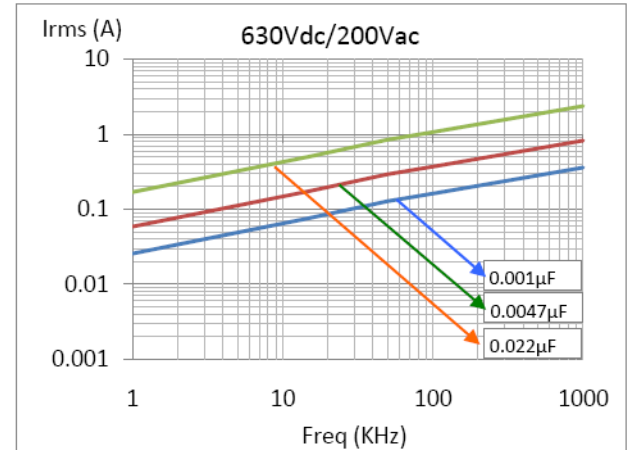
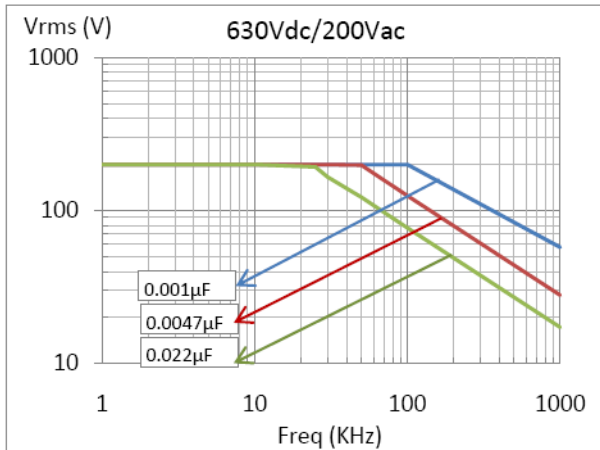
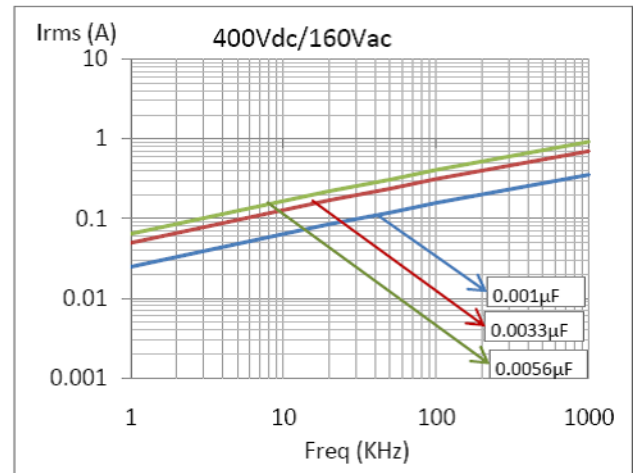
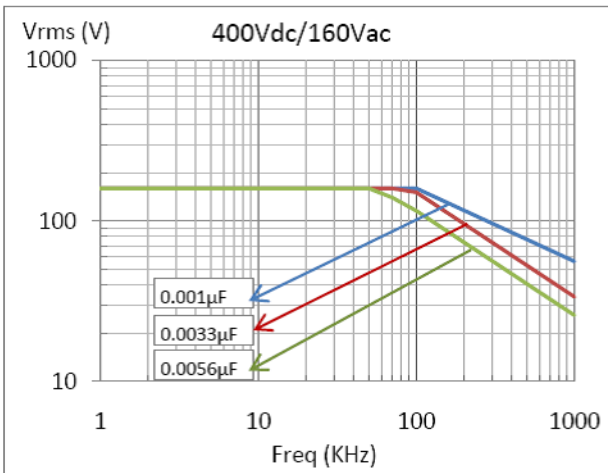
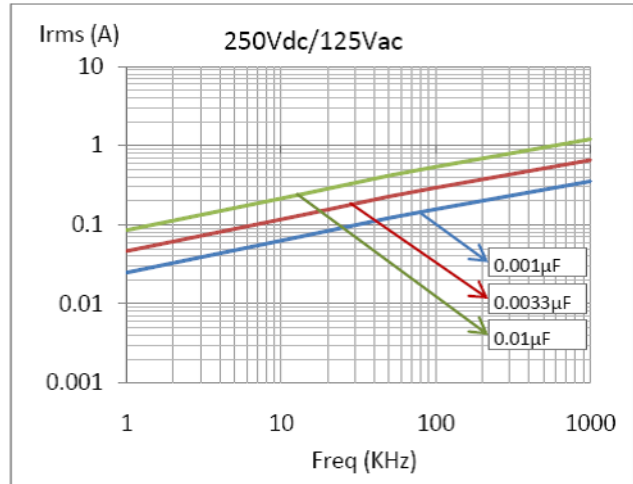
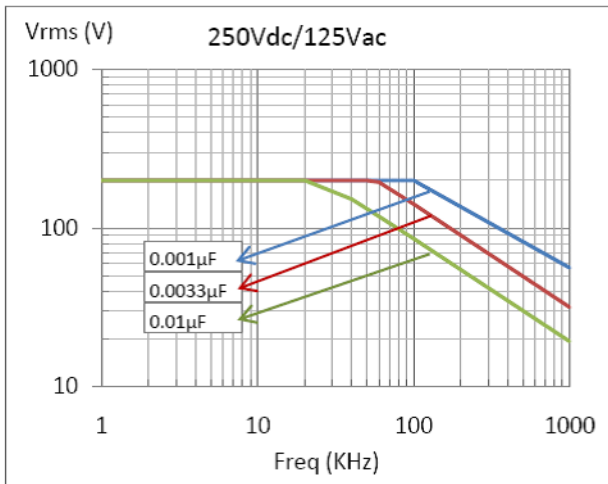
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Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at $T \leq 85^\circ\text{C}$)

Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at $T \leq 85^\circ\text{C}$)



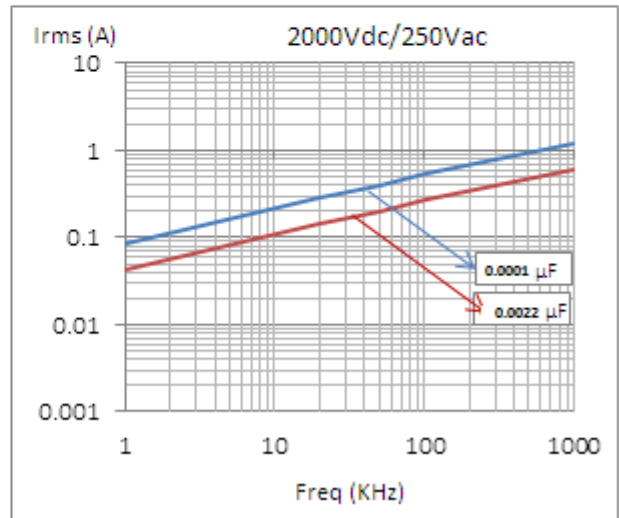
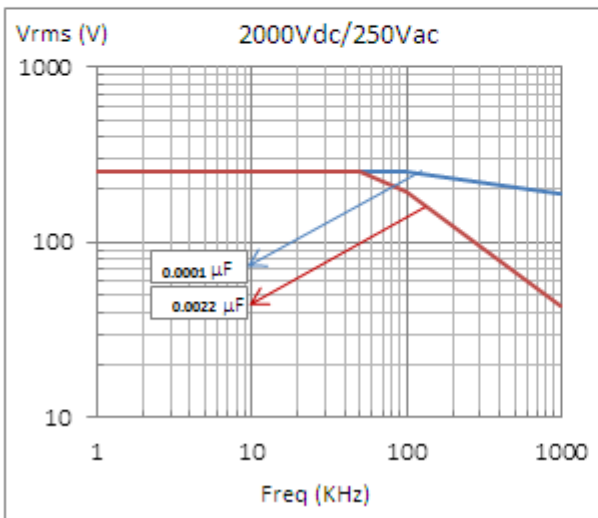
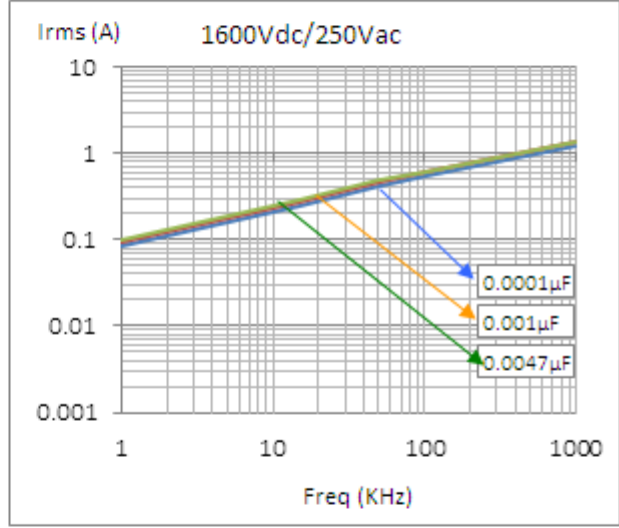
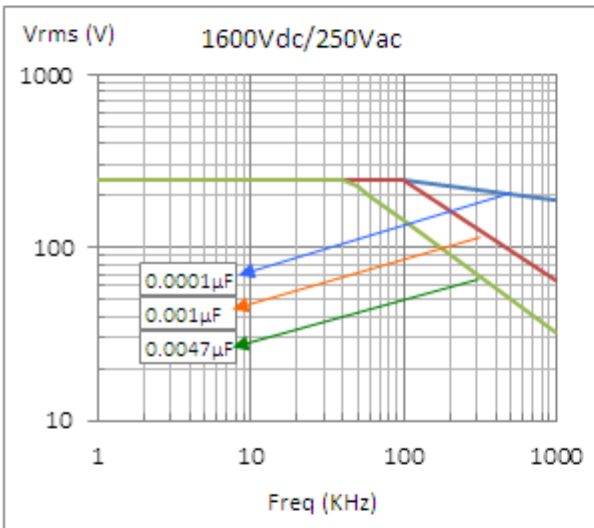
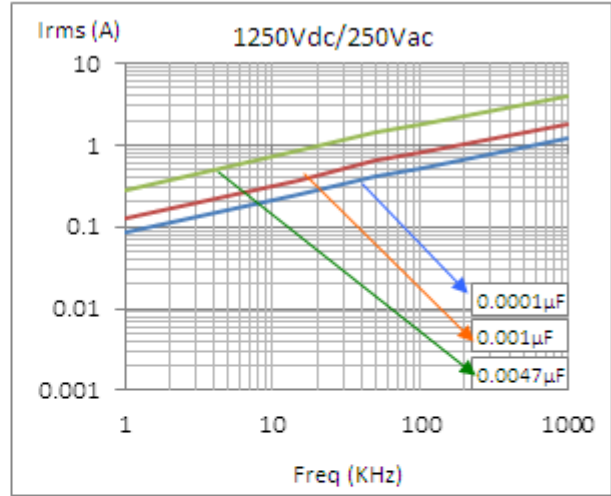
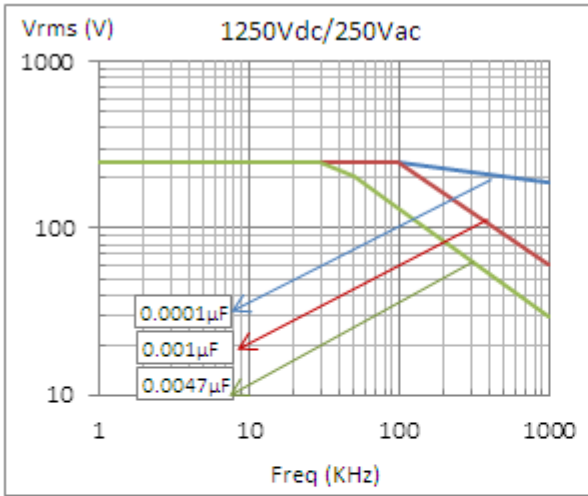
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Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at $T \leq 85^\circ\text{C}$)

Max. Current (Irms) vs. Frequency
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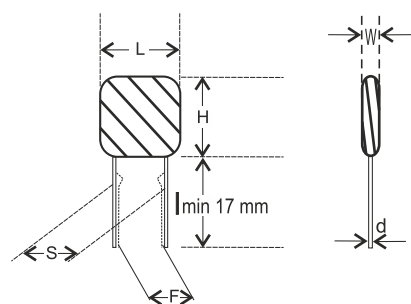
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Ordering code and packaging unit: Plain Polypropylene Film Capacitors Inductive • Series Code 03

Rated Voltage	Rated Cap. (μF)	Dimensions (mm)						DV/DT V/μs	Wt. g	Ordering code	Packing units	
		W max.	H max.	L max.	d ±0.05	S ±0.75	F ±0.5				Ammo	Bulk
100 VDC	0.0001	9.0	15.0	6.0	0.5	5.0	5	10000	0.50	03 101 +2A [^]	4000	2000
	0.001	6.5	12.0	4.0	0.5	4.0	5	10000	0.22	03 102 +2A [^]	4500	2000
	0.01	7.5	12.0	4.5	0.5	5.0	5	10000	0.30	03 103 +2A [^]	4500	2000
	0.1	11.5	14.0	7.0	0.5	7.5		10000	0.95	03 104 +2A [^]	2000	1000
250 VDC	0.0001	9.0	15.0	6.0	0.5	5.0	5	10000	0.50	03 101 +2E [^]	4000	2000
	0.001	6.5	12.0	4.0	0.5	4.0	5	10000	0.22	03 102 +2E [^]	4500	2000
	0.0047	7.0	12.0	4.5	0.5	4.5	5	10000	0.85	03 472 +2E [^]	4500	2000
	0.01	8.5	12.0	5.0	0.5	5.5	5	10000	0.85	03 103 +2E [^]	4000	2000
400 VDC	0.0001	9.0	15.0	6.0	0.5	5.0	5	10000	0.50	03 101 +2G [^]	4000	2000
	0.0047	7.5	14.0	5.0	0.5	5.0	5	10000	0.55	03 472 +2G [^]	2500	2000
	0.0056	8.5	14.0	5.0	0.5	5.5	5	10000	0.60	03 562 +2G [^]	2500	2000
630 VDC	0.0001	9.0	15.0	6.0	0.5	5.0	5	10000	0.50	03 101 +2J [^]	4000	2000
	0.0047	9.5	13.0	6.0	0.5	5.0	5	10000	0.45	03 472 +2J [^]	2500	2000
	0.0068	9.5	14.0	6.5	0.5	5.5	5	10000	0.60	03 682 +2J [^]	1500	2000
	0.01	10.5	14.0	7.0	0.5	7.5	5	10000	0.75	03 103 +2J [^]	1500	2000
	0.022	13.0	18.0	9.0	0.5	8.5	5	10000	1.12	03 223 +2J [^]	1500	1000
1000 VDC	0.0001	9.0	15.0	6.0	0.5	5.0	5	10000	0.50	03 101 +3A [^]	4000	2000
	0.0047	10.0	14.0	6.5	0.5	5.0	5	10000	0.36	03 472 +3A [^]	2500	2000
	0.0068	10.5	14.0	7.0	0.5	5.0	5	10000	0.55	03 682 +3A [^]	2500	2000
1250 VDC	0.0001	9.0	15.0	6.0	0.5	5.0	5	10000	0.50	03 101 +3B [^]	4000	2000
	0.001	9.0	15.0	6.5	0.5	5.0	5	10000	0.55	03 102 +3B [^]	2500	2000
	0.0047	10.5	15.0	7.0	0.5	5.0	5	10000	0.55	03 472 +3B [^]	2500	2000
1600 VDC	0.0001	9.0	15.0	6.0	0.5	5.0	5	10000	0.50	03 101 +3C [^]	4000	2000
	0.001	9.5	15.0	8.5	0.5	5.0	5	10000	0.55	03 102 +3C [^]	2500	2000
	0.0047	12.0	15.0	9.5	0.5	7.5	5	10000	0.55	03 472 +3C [^]	2500	2000
2000 VDC	0.0001	9.0	15.0	6.0	0.5	5.0	5	10000	0.50	03 101 +3D [^]	4000	2000
	0.0022	12.5	15.0	6.0	0.5	7.5	5	10000	0.50	03 222 +3D [^]	2500	2000



Note: For more details please contact info@dekielectronics.com

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