

High Voltage Film Capacitor

Metallized Polyester

- High Reliability
- Non-inductive Construction
- Excellent Self-healing
- Low ESL and ESR
- Customization Available



Physical Characteristics

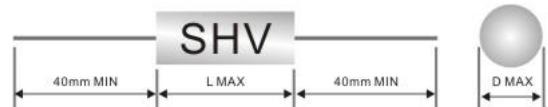
Construction: Non-inductive wound metallized polyester
Case: Polyester film wrapped and epoxy end filled
Lead material: Axial solder coated or tinned solid wire
Lead strength: Capable of withstanding a five pound pull force on lead axis

Electrical Characteristics

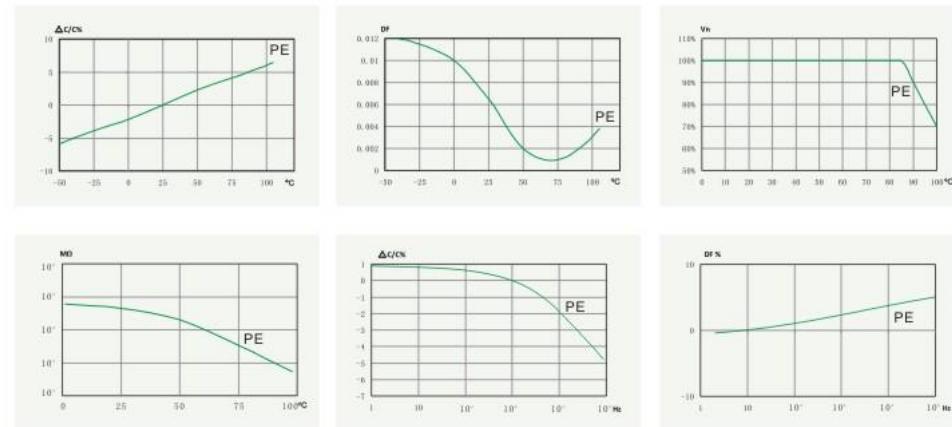
Rated Voltage:	1KV ~ 35KV (DC) 0.6KV ~ 10KV (AC)
Capacitance:	0.001uF ~ 20uF
Dissipation Factor:	≤0.01 (20°C, 1KHZ)
Insulation Resistance:	≥30000MΩ (20°C, 2min, 500V)
Test Voltage:	120% or 140% of rated voltage for 30 seconds
Operating Condition:	-40°C ~ +85°C at full rated voltage, to +85°C with 25% voltage derating
Tolerance:	±5%±10%

Application

X-ray Equipment, High Voltage Power Supply, Multiplier, Electrical System



Typical Characteristic Curves



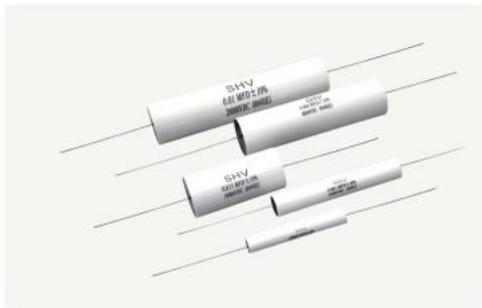
Selection Table

Capacitance uF	2KV			4KV			6KV			8KV			10KV			12KV			15KV			20KV		
	L Max	D Max	Lead AWG																					
0.001	30	6	22	29	7	22	37	7.5	22	45	8	22	50	9	22	60	8	22	72	8	22	72	11	20
0.0015	30	6	22	29	7.5	22	37	8	22	45	9	22	50	10	22	60	9	22	72	9	22	72	13	20
0.0022	30	6	22	29	8	22	37	9	22	45	10	22	50	11	22	60	10	22	72	11	22	72	15	20
0.0033	30	6	22	29	9	22	37	11	22	45	12	22	50	12	22	60	12	22	72	12	22	72	17	20
0.0047	30	6.5	22	29	10	22	37	12	22	45	14	22	50	14	22	60	13	22	72	14	22	72	20	20
0.0056	30	7	22	29	11	22	37	13	22	45	15	22	50	15	22	60	14	22	72	15	22	72	21	20
0.0068	30	7	22	29	12	22	37	14	22	45	16	22	50	16	20	60	15	20	72	16	20	72	23	20
0.0082	30	7	22	29	13	22	37	15	22	45	17	22	50	18	20	60	16	20	72	18	20	72	25	20
0.01	30	8	22	29	14	22	37	16	22	45	18	22	50	19	20	60	18	20	72	19	20	72	28	20
0.015	30	9	22	29	16	22	37	19	22	45	22	22	50	23	20	60	21	20	72	23	20	72	33	20
0.022	30	10	20	29	19	20	37	23	20	45	26	20	50	27	20	60	25	20	72	27	20	72	40	20
0.033	30	11	20	36	16	20	49	19	20	62	21	20	81	24	20	71	29	20	72	33	20	72	46	20
0.047	30	12	20	36	18	20	49	22	20	62	25	20	81	28	20	71	34	20	82	36	20	92	46	20
0.056	30	13	20	36	20	20	49	24	20	62	27	20	81	30	20	71	37	20	82	40	20	92	50	20
0.068	30	14	20	36	22	20	49	26	20	62	30	20	81	33	20	71	40	20	82	43	20	92	55	20
0.082	30	15	20	36	23	20	49	28	20	62	32	20	81	36	20	71	44	20	82	47	20	113	45	20
0.1	30	16	20	36	26	20	49	31	20	62	35	20	81	39	20	00	37	20	117	40	20	113	50	20
0.15	46	15	20	48	17	20	85	30	20	81	40	20	81	7	20	00	45	20	117	49	20	113	60	20
0.22	46	17	20	48	20	20	85	35	20	81	48	20	100	53	20	00	53	20	117	58	20			
0.33	46	20	20	48	24	20	85	42	20	81	58	20	100	65	20	00	65	20						
0.47	46	23	20	48	28	20	85	46	20	81	69	20												
0.56	46	24	20	48	30	20	85	46	20	81	69	20												
0.68	46	27	20																					

High Voltage Film Capacitor

Metallized Polypropylene

- High Reliability
- Non-inductive Construction
- Lowest Dissipation Factor
- Excellent Self-healing
- Low ESL and ESR
- Customization Available



Physical Characteristics

Construction: Non-inductive wound metallized polypropylene

Case: Polyester film wrapped and epoxy end filled

Lead material: Axial solder coated or tinned solid wire

Copper soldering pad, copper plated nut, copper plated bolt

Lead strength: Capable of withstanding a five pound pull force on lead axis

Electrical Characteristics

Rated Voltage: 1KV ~ 35KV (DC) 0.6KV ~ 10KV (AC)

Capacitance: 0.001uF ~ 20uF

Dissipation Factor: ≤0.001 (20°C, 1KHZ)

Insulation resistance: ≥30000MΩ (20°C, 2min, 500V)

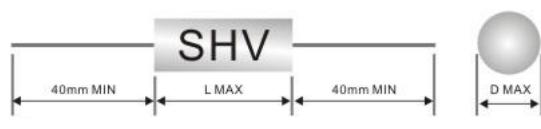
Test voltage: 120% or 140% of rated voltage for 30 seconds

Operating Condition: -40°C ~ +85°C at full rated voltage,
to +85°C with 25% voltage derating

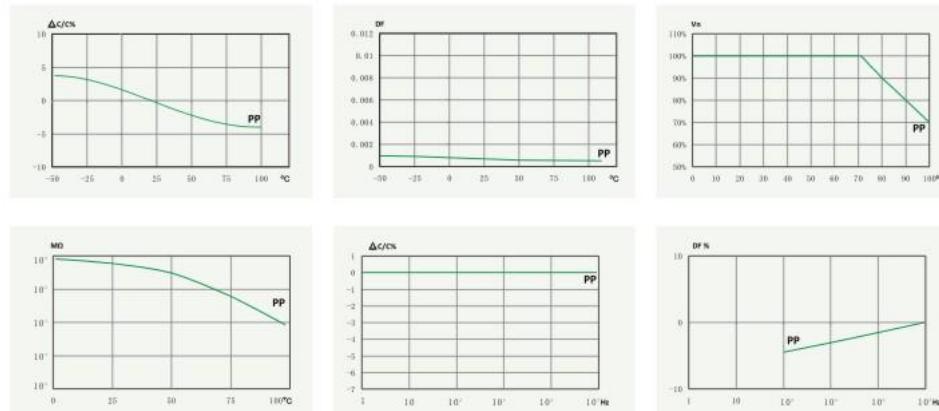
Tolerance: ±5%±10%

Application

X-ray Equipment, High Voltage Power Supply, Multiplier, Electrical System



Typical Characteristic Curves



Selection Table

Capacitance uF	2KV			4KV			6KV			8KV			10KV			12KV			15KV			20KV				
	L mm	D mm	Lead AWG																							
0.001	30	6	22	29	7.5	22	37	8	22	45	9	22	49.5	10	22	60	9	22	72	10	22	72	12	20		
0.0015	30	6	22	29	8	22	37	9	22	45	10	22	49.5	11	22	60	10	22	72	11	22	72	15	20		
0.0022	30	6	22	29	9	22	37	11	22	45	12	22	49.5	12	22	60	12	22	72	12	22	72	17	20		
0.0033	30	6.5	22	29	11	22	37	12	22	45	14	22	49.5	14	22	60	13	22	72	14	22	72	20	20		
0.0047	30	7	22	29	12	22	37	14	22	45	16	22	49.5	17	22	60	15	22	72	17	22	72	23	20		
0.0056	30	7	22	29	13	22	37	15	22	45	18	22	49.5	18	22	60	17	22	72	18	22	72	25	20		
0.0068	30	7.5	22	29	14	22	37	16	22	45	19	22	49.5	19	20	60	18	20	72	19	20	72	28	20		
0.0082	30	8	22	29	15	22	37	18	22	45	20	22	49.5	21	20	60	19	20	72	21	20	72	30	20		
0.01	30	8.5	22	29	16	22	37	19	22	45	22	22	49.5	23	20	60	21	20	72	23	20	72	33	20		
0.015	30	9	22	29	19	22	37	23	22	45	26	22	49.5	28	20	60	25	20	72	27	20	72	40	20		
0.022	30	11	20	29	23	20	37	27	20	45	31	20	49.5	33	20	60	30	20	72	33	20	72	48	20		
0.033	30	12	20	36	19	20	49	22	20	62	25	20	81	28	20	71	34	20	72	40	20	92	47	20		
0.047	30	14	20	36	22	20	49	26	20	62	30	20	81	33	20	71	40	20	82	44	20	92	55	20		
0.056	30	15	20	36	24	20	49	28	20	62	32	20	81	36	20	71	44	20	82	47	20	92	60	20		
0.068	30	16	20	36	26	20	49	31	20	62	35	20	81	39	20	71	48	20	82	52	20	92	66	20		
0.082	30	18	20	36	28	20	49	34	20	62	38	20	81	43	20	71	52	20	82	57	20	113	53	20		
0.1	30	19	20	36	31	20	49	37	20	81	39	20	81	47	20	100	44	20	117	48	20	113	60	20		
0.15	46	7	20	48	20	20	85	35	20	81	48	20	100	52	20	100	53	20	117	58	20					
0.22	46	19	20	48	24	20	85	42	20	81	58	20	100	64	20	100	64	20								
0.33	46	23	20	48	28	20	85	50	20																	
0.47	46	27	20	48	33	20																				
0.56	46	29	20	48	36	20																				
0.68	46	31	20																							

Power Film Capacitor

Plastic Case



- Large Current and High Overvoltage Withstanding
- Self-healing
- Low ESR and ESL
- Operating Condition up to 105°C
- Long Life
- Customization Available

Physical Characteristics

Construction:

Non-inductive wound metallized polyester or polypropylene

Case:

Self-extinguishing plastic case (UL 94-V0) resin filled

Terminal:

Male connection (M8×20mm, max torque 8.5Nm)

Female connection (M8×7.5mm, max torque 2.5Nm)

Electrical Characteristics

Rated Voltage: 300V ~ 2500V (DC)

Capacitance: 1uF ~ 400uF

Tolerance: ±5% ±10%

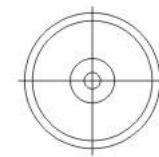
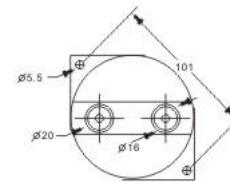
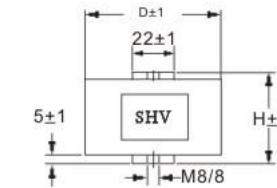
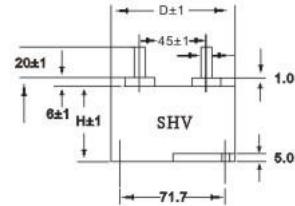
Insulation Voltage: 7kVrms/60sec/50Hz (between shorted terminals and earth)

Test Voltage: 150% of rated voltage for 10 seconds at 25°C

Operating Condition: -40°C~+105°C

Application

Induction Heating, Speed Converter System, Power Supplier and Resonant Convertor, Electrical Vehicle, Replace Electrolytic Capacitor, Traction, Welding, Wind Mill, Energy Storage



Male Connection

Female Connection

Selection table

Vdc (VDC)	300				400				500				600				700				800				900				1000				1100				1300				2000				2500							
Capacitance (uF)	180	195	250	350	400	100	120	150	180	220	125	200	275	25	100	150	220	100	150	220	1	1.5	2	3	3.5	4	5	6	66	100	140	12	38	47	86	70	100	140	1	1.5	2	2.5	3	3.5	4	47	70	100	1	1.5	2	1.25
H x D (mm)	34 x	34 x	40 x	51 x	51 x	34 x	34 x	40 x	51 x	64 x	49 x	49 x	52 x	52 x	52 x	52 x	52 x	40 x	51 x	64 x	34 x	34 x	40 x	40 x	51 x	64 x	52 x	52 x	52 x	52 x	52 x	40 x	51 x	64 x	59 x	59 x	62 x	62 x	62 x	62 x	62 x											
Ims max (A)	85 100	85 100	85 100	85 100	85 100	80 100	80 100	80 100	80 100	90 100	15 20	20 30	30 45	45 50	50 60	60 70	75 100	100 100	90 100	100 100	20 30	30 40	40 60	60 65	65 70	70 100	100 90	18 25	25 35	35 40	40 50	50 65	38 55	55 75	50 65																	
Ls max (nH)	18 25	18 25	32 32	32 32	18 25	18 25	32 32	32 32	25 32	40 40	18 25	25 32	32 40	25 32	40 40	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
Rs (mΩ)	0.8 0.8	0.8 0.8	0.6 0.8	0.8 0.8	0.7 0.7	1 1	0.9 0.9	0.6 0.8	0.9 0.9	0.7 0.7	1 1	0.6 0.8	0.9 0.9	0.9 0.9	0.8 0.9	0.7 0.7	0.6 0.7	0.7 1	1.3 1.3	0.9 0.9	0.7 0.7	0.8 0.8	0.7 0.7	1.2 1.1	1.3 1.3	2.5 2.5	1.5 1.5	1.2 1.2	1 1	0.9 0.9	0.8 0.8	0.7 0.7	0.8 0.8	1.2 1.1	1 3	2 2	1.5 1.5	1.3 1.3	1.2 1.2	1 1	1.5 1.5	1 1	0.9 0.9	1.2 1								
Rth (°C/W)	4.7 4.4	4.4 5.2	5.2 7.2	7.1 7.1	4.7 4.1	4.1 5	8.5 8.7	7.2 7.2	5 6.7	8.7 8.7	4.3 4.8	4.8 6.9	6.9 8.4	4.8 6.9	8.4 8.4	14 10	6.1 6.1	4.5 4.5	4.5 3.5	2.5 2.5	2.5 2.5	4.7 4.7	6.7 6.7	8.4 8.4	4.4 4.4	3.9 3.9	4.6 4.6	4.7 4.7	6.7 8.2	8.4 8.4	10.5 10.5	6.1 6.1	4.5 4.5	3.7 3.7	3.2 3.2	2.9 2.9	2.5 2.5	4.6 4.6	6.7 6.7	8.2 8.2	13 13	10 10	6.5 6.5	4.8 4.8	4.4 4.4	3.4 3.4	6.2 6.2	4 4	3.3 3.3			

Power Film Capacitor AL Case



- Non-inductive Construction
- Large Current and High Overvoltage Withstanding
- Excellent Self-healing
- Low ESR and ESL
- Long Life
- Customization Available

Physical Characteristics

Construction: Non-inductive wound metallized polyester or polypropylene
Case: Cylindrical resin-filled Aluminum case
Terminal: Male connection (M8×20mm, max torque 8.5Nm)
Female connection (M8×7.5mm, max torque 2.5Nm)

Electrical Characteristics

Rated Voltage: 300V ~ 1200V (DC)
Capacitance: 160uF ~ 400uF
Tolerance: ±5% ±10%
Maximum RMS Current: 60Arms
Insulation Voltage: 4kVrms/60sec/50Hz (between shorted terminals and case@25°C)
Test Voltage: 150% of rated voltage for 10 seconds at 25°C
Operating Condition: -40°C ~ +105°C

Application

Speed Converter System, Electrical Vehicle, Replace Electrolytic Capacitor

High Voltage Film Capacitor Ultra Small



- High Reliability
- Non-inductive Construction
- Size 50% Smaller
- Self-healing
- Low ESL and ESR
- Customization Available

Electrical Characteristics

Rated Voltage: 2KV ~ 35KV (DC) 1KV ~ 10KV (AC)
Capacitance: 0.001uF ~ 20uF
Test Voltage: 120% or 140% of rated voltage for 30 seconds
Operating Condition: -40°C ~ +65°C at full rated voltage, to +85°C with 25% voltage derating
Tolerance: ±5% ±10%

Application

X-Ray Equipment, High Voltage Power Supply, Multiplier, Electrical System, Electrolytic Generator

Hybrid Vehicle Power Capacitor

- Specific Design for Hybrid Vehicle
- High Reliability
- Non-inductive Construction
- Excellent Self-healing
- Customization available



Physical Characteristics

Construction: Non-inductive wound metallized polypropylene
Case: PBT plastic (customization available based on requirement)
Lead material: Soldering lug

Electrical Characteristics

Rated capacitance:	300uF ~ 3000uF
Tolerance:	±5% ±10%
Rated voltage:	450V ~ 900V (DC)
Outstanding voltage between terminals:	1.5Rated Voltage
Outstanding voltage between terminals and case:	2500V (AC)
Overvoltage:	1.5Rated voltage
Insulation resistance:	≥10000MΩ (20°C, 2min, 500V)
Dissipation factor:	2x10⁻⁴
ESR:	≤0.1mΩ
Self-inductance:	≤5nH
Rated current:	Up to 250Arms
ΔC/C0:	≤±3%
Operating Condition:	-40°C ~ +105°C (1.25 voltage derating per °C over 85°C)
Max. Relative Humidity:	95%

Due to different battery voltage, driven power, dimension of driven controller and inner distribution, Power Capacitor for Hybrid Vehicle is highly customized product, please provide more details when inquiry, such as electrical characteristics, Mechanical specification etc.