

2.2 High Voltage Pulse Capacitors : STHVP-AN series

Applications :

- High Voltage Energy and Current Discharge
- Medium Frequency range and RMS Current rating
- AC / DC voltage application
- Capacitor can be discharged at rated voltage directly without any protective component with temperature up to 105C
- High Voltage Decoupling and Snubbing
- Voltage Multiplier
- Induction heating / melting
- act as discharge capacitor to trigger laser, X-Ray and Tesla Coil
- for high voltage capacitor bank or array
- High Voltage Power Supplies

Features :

- low inductance
- excellent Frequency Response
- RMS Current Rating
- high peak Pulse Current Ratings (dv/dt)
- higher Temperature range

When compare with traditional Paper Dielectric, Oil Impregnated and Metal Enclosure Capacitor :

- Plastic enclosure : safer when compare with oil impregnated capacitor, especially high voltage application.
- Dry construction : Epoxy Resin end seal and doesn't have impregnant leakage problem
- Plastic enclosure and Epoxy Resin are flame retardant UL94-V0 grade
- compact size and light weight
- Higher Insulation Resistance and Insulation Voltage
- Low capacitor loss
- DC Blocking / Ultra-Low Leakage version on request



Electrical Characteristics :

Rated Voltage : 1,600Vdc – 12.5KVdc / 800Vac – 3,500Vac

Capacitance : 0.1uF – 10uF

Maximum Ripple Current : up to 60A

Peak discharge current - I_{peak} : up to 6150A

Tolerance : +/-10%, +/-5% at 22C 1kHz,

Testing Voltage : 1.3 x Un 10sec (can be customized design)

Insulation Resistance : 250Vdc +25C >= 300,000Mohm

250Vdc +85C >= 50,000Mohm

250Vdc +105C >= 5,000Mohm

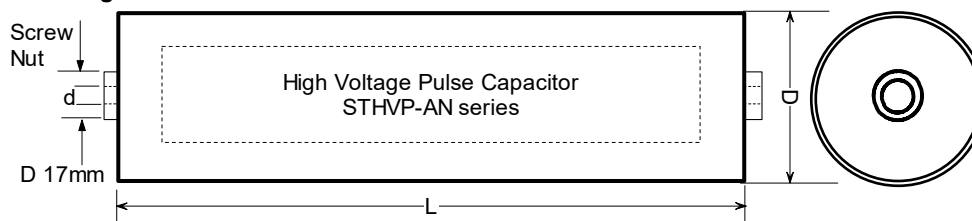
Low ESR and series Inductance

Temperature range : +70C / +85C / +105C (depends on capacitor raw materials)

Ultra-Low Leakage version is available on request

Drawing :

Drawing : STHVP-AN series



STHVP-AN : 1600Vdc / 800Vac

P/N :	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I _{D-P} A	ESL nH	ESR (mohm) 100KHz	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C
STHVP-AN305K1600D	3	65	130	700	2100	20	3.1	40	28	20
STHVP-AN405K1600D	4	65	155	700	2800	22	2.8	40	28	20
STHVP-AN505K1600D	5	90	130	700	3500	20	2.6	50	35	25
STHVP-AN605K1600D	6	90	130	700	4200	20	2.4	55	38	28
STHVP-AN805K1600D	8	90	155	500	4000	22	2.1	55	38	28
STHVP-AN106K1600D	10	90	155	500	5000	22	1.8	60	40	30

For any Capacitance, Voltage, RMS Current, dv/dt and Peak Pulse Discharge Current not listed, please contact us for a suggestion.

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STHVP-AN : 2000Vdc / 1000Vac

P/N :	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I _{p-p} A	ESL nH	ESR (mohm) 100KHz	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C
STHVP-AN504K2000D	0.5	65	130	1600	800	20	3.3	20	15	12
STHVP-AN105K2000D	1	65	130	1600	1600	20	3.1	25	18	15
STHVP-AN155K2000D	1.5	65	130	1600	2400	20	1.9	30	20	18
STHVP-AN205K2000D	2	65	155	1200	2400	22	1.8	30	20	18
STHVP-AN225K2000D	2.2	65	155	1200	2640	22	1.8	30	20	18
STHVP-AN255K2000D	2.5	90	130	1600	4000	20	1.7	40	30	22

STHVP-AN : 3000Vdc / 1200Vac

P/N :	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I _{p-p} A	ESL nH	ESR (mohm) 100KHz	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C
STHVP-AN504K3000D	0.5	65	130	2900	1450	20	2.9	20	15	12
STHVP-AN105K3000D	1	65	130	2900	2900	20	2.7	25	18	15
STHVP-AN155K3000D	1.5	90	130	2900	4350	20	2.4	35	25	18
STHVP-AN205K3000D	2	90	130	2900	5800	20	2.1	50	35	25
STHVP-AN225K3000D	2.2	90	155	2200	4840	22	1.9	50	35	25
STHVP-AN255K3000D	2.5	90	130	2200	5500	22	1.4	60	40	30

STHVP-AN : 4000Vdc / 1600Vac

P/N :	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I _{p-p} A	ESL nH	ESR (mohm) 100KHz	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C
STHVP-AN334K4000D	0.33	65	190	3900	1287	20	3.1	20	15	12
STHVP-AN504K4000D	0.5	65	190	3900	1450	20	2.9	20	15	12
STHVP-AN105K4000D	1	90	190	3900	3900	20	2.7	35	25	18
STHVP-AN125K4000D	1.2	90	190	3900	4680	20	2.4	40	28	20
STHVP-AN155K4000D	1.5	90	240	3000	4500	22	2.1	40	28	20
STHVP-AN205K4000D	2	90	240	3000	6000	22	1.9	55	38	28

STHVP-AN : 5500Vdc / 2200Vac

P/N :	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I _{p-p} A	ESL nH	ESR (mohm) 100KHz	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C
STHVP-AN254K5500D	0.25	65	240	5400	1350	20	3.2	25	18	13
STHVP-AN334K5500D	0.33	65	240	5400	1782	20	3.1	25	18	13
STHVP-AN504K5500D	0.5	90	240	5400	2700	20	2.9	30	20	15
STHVP-AN754K5500D	0.75	90	240	5400	4050	20	2.8	35	25	18
STHVP-AN105K5500D	1	90	240	5400	5400	20	2.6	40	28	22
STHVP-AN125K5500D	1.2	90	295	4100	4920	22	2.4	40	28	22
STHVP-AN155K5500D	1.5	90	295	4100	6150	22	2.1	50	35	25

STHVP-AN : 7000Vdc / 2600Vac

P/N :	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I _{p-p} A	ESL nH	ESR (mohm) 100KHz	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C
STHVP-AN224K7000D	0.22	65	295	7000	1540	20	3.3	20	15	10
STHVP-AN254K7000D	0.25	65	295	7000	1750	20	3.2	25	18	13
STHVP-AN334K7000D	0.33	65	295	7000	2310	20	3.1	25	18	13
STHVP-AN504K7000D	0.5	90	295	7000	3500	20	2.9	30	20	16
STHVP-AN684K7000D	0.68	90	295	7000	4760	20	2.6	35	25	18
STHVP-AN754K7000D	0.75	90	295	7000	5250	20	2.1	40	28	20

STHVP-AN : 10000Vdc / 3000Vac

P/N :	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I _{p-p} A	ESL nH	ESR (mohm) 100KHz	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C
STHVP-AN224K10000D	0.22	65	295	10700	2354	22	3.3	20	15	10
STHVP-AN254K10000D	0.25	65	295	10700	2675	22	3.2	20	15	10
STHVP-AN334K10000D	0.33	65	295	10700	3531	22	3.1	25	18	13
STHVP-AN504K10000D	0.5	90	295	10700	5350	22	2.9	30	20	15

STHVP-AN : 12500Vdc / 3500Vac

P/N :	Cn uF	Diameter D mm	Length L mm	dv/dt v/us	Peak Current I _{p-p} A	ESL nH	ESR (mohm) 100KHz	Max. Amp 70C	Max. Amp 85C	Max. Amp 105C
STHVP-AN104K12500D	0.1	65	295	16100	1610	15	4.5	20	15	10
STHVP-AN124K12500D	0.12	65	295	16100	1932	15	3.8	20	15	10
STHVP-AN154K12500D	0.15	90	295	16100	2415	15	3.2	25	20	15
STHVP-AN204K12500D	0.2	90	295	16100	3220	15	2.9	30	25	20
STHVP-AN224K12500D	0.22	90	295	16100	3542	15	2.6	35	30	25
STHVP-AN254K12500D	0.25	90	295	16100	4025	15	2.4	35	30	25

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