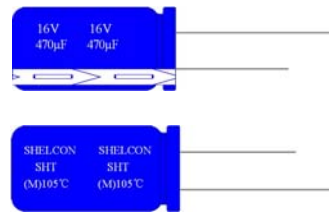


SHT Series

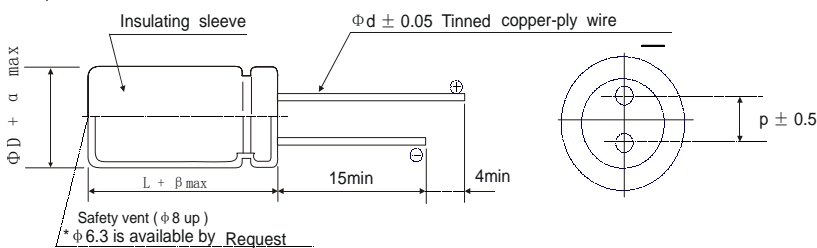
- Ultra Low Impedance for Personal Computer and Storage Equipment
- Endurance with ripple current: 105°C 2000 to 5000 hours
- Non solvent-proof type



◆ SPECIFICATIONS

Item	Characteristics																				
Operating Temperature Range	-40~+105°C																				
Voltage Range	6.3 ~ 100V.DC																				
Nominal Cap. Range	6.8 ~ 6800 µF																				
Capacitance Tolerance	- 20% ~ + 20% (at 20°C, 120Hz)																				
Leakage Current	I = 0.01CV or 3µA whichever is greater (after 2 minutes) where, I: Max Leakage Current (µA), C: Nominal Capacitance (µF), V: Rated Voltage (V) at 20°C																				
Dissipation Factor (tanδ) (at 120Hz, +20°C)	<table border="1"> <thead> <tr> <th>Rated voltage (V.DC)</th> <th>6.3V</th> <th>10V</th> <th>16V</th> <th>25V</th> <th>35V</th> <th>50V</th> <th>63V</th> <th>80V</th> <th>100V</th> </tr> </thead> <tbody> <tr> <td>tan δ (Max)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.1</td> <td>0.09</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table> <p>Add 0.02 per 1,000 µ F for more than 1,000 µ F items</p>	Rated voltage (V.DC)	6.3V	10V	16V	25V	35V	50V	63V	80V	100V	tan δ (Max)	0.22	0.19	0.16	0.14	0.12	0.1	0.09	0.09	0.08
Rated voltage (V.DC)	6.3V	10V	16V	25V	35V	50V	63V	80V	100V												
tan δ (Max)	0.22	0.19	0.16	0.14	0.12	0.1	0.09	0.09	0.08												
Low Temp. Impedance Stability at 120Hz	<table border="1"> <tbody> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>2 max.</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>3 max.</td> </tr> </tbody> </table>	Z(-25°C)/Z(+20°C)	2 max.	Z(-40°C)/Z(+20°C)	3 max.																
Z(-25°C)/Z(+20°C)	2 max.																				
Z(-40°C)/Z(+20°C)	3 max.																				
Impedance (Ω)	See Case Size Table																				
High Temp. Load Test	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 105°C. φ5 & φ6.3: 2000 hours; φ8: 3000 hours; φ10: 4000 hours; φ13 & φ16: 5000 hours</p> <p>Capacitance change ≤ ±25% of the initial measured value Tanδ ≤ 200% of the initial specified value DC Leakage Current ≤ the initial specified value</p>																				
High Temp. Non-Load Test	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 105°C without voltage applied.</p> <p>Capacitance Change ≤ ±25% of the initial measured value Tanδ ≤ 200% of the initial specified value DC Leakage Current ≤ the initial specified value</p>																				

◆ DRAWING



Unit: (mm)

ΦD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8
β	1.5						
α	0.5						

▼ MULTIPLIER FOR RIPPLE CURRENT

(1) Frequency coefficient

Cap(µF) \ Freq.(HZ)	120	1K	10K	100K
6.8 ~ 180	0.40	0.75	0.90	1.00
220 ~ 560	0.50	0.85	0.94	1.00
680 ~ 1800	0.60	0.87	0.95	1.00
2200 ~ 3900	0.75	0.90	0.95	1.00
4700 ~ 6800	0.85	0.95	0.98	1.00

(2) Temperature coefficient

Ambient Temperature(°C)	40	60	70	85	105
Coefficient	2.40	2.10	1.78	1.65	1.00

SHT Series

■ STANDARD RATINGS

WV(Vdc) Case Size: ΦDxL(mm)	6.3			10			16					
	Cap. (μF)	Impedance	Ripple Current	Cap. (μF)	Impedance	Ripple Current	Cap. (μF)	Impedance	Ripple Current			
5x11	150	0.3	1	250	100	0.3	1	250	56	0.3	1	250
6.3X11	330	0.13	0.41	405	220	0.13	0.41	405	120	0.13	0.41	405
8X11.5	560	0.072	0.22	760	470	0.072	0.22	760	330	0.072	0.22	760
8X15	820	0.056	0.17	995	680	0.056	0.17	995	470	0.056	0.17	995
8X20	1200	0.041	0.13	1250	1000	0.041	0.13	1250	680	0.041	0.13	1250
10X12.5	1000	0.053	0.16	1030	680	0.053	0.16	1030	470	0.053	0.16	1030
10X16	1200	0.038	0.12	1430	1000	0.038	0.12	1430	680	0.038	0.12	1430
10X20	1500	0.023	0.069	1820	1200	0.023	0.069	1820	1000	0.023	0.069	1820
10x25	2200	0.022	0.066	2150	1500	0.022	0.066	2150	1200	0.022	0.066	2150
13x20	3300	0.021	0.053	2360	2200	0.021	0.053	2360	1500	0.021	0.053	2360
13X25	3900	0.018	0.045	2770	3300	0.018	0.045	2770	2200	0.018	0.045	2770
13X30	4700	0.016	0.041	3290	3900	0.016	0.041	3290	2700	0.016	0.041	3290
13X35	5600	0.015	0.039	3400	4700	0.015	0.039	3400	3300	0.015	0.039	3400
16X20	5600	0.018	0.045	3140	3900	0.018	0.045	3140	2700	0.018	0.045	3140
16X25	6800	0.016	0.043	3460	5600	0.016	0.043	3460	3900	0.016	0.043	3460

WV(Vdc) Case Size: ΦDxL(mm)	25			35			50					
	Cap. (μF)	Impedance	Ripple Current	Cap. (μF)	Impedance	Ripple Current	Cap. (μF)	Impedance	Ripple Current			
5x11	47	0.3	1	250	33	0.3	1	250	22	0.34	1	238
6.3X11	100	0.13	0.41	405	56	0.13	0.41	405	56	0.14	0.41	385
8X11.5	220	0.072	0.22	760	150	0.072	0.22	760	100	0.074	0.22	724
8X15	330	0.056	0.17	995	220	0.056	0.17	995	120	0.061	0.17	950
8X20	470	0.041	0.13	1250	330	0.041	0.13	1250	180	0.046	0.13	1190
10X12.5	330	0.053	0.16	1030	470	0.053	0.16	1030	150	0.061	0.16	979
10X16	470	0.038	0.12	1430	560	0.038	0.12	1430	220	0.042	0.12	1370
10X20	680	0.023	0.069	1820	680	0.023	0.069	1820	270	0.030	0.069	1580
10X25	820	0.022	0.066	2150	680	0.022	0.066	2150	330	0.028	0.066	1870
13X20	1000	0.021	0.053	2360	1000	0.021	0.053	2360	470	0.027	0.053	2050
13X25	1500	0.018	0.045	2770	1200	0.018	0.045	2770	560	0.023	0.045	2410
13X30	1800	0.016	0.041	3290	1500	0.016	0.041	3290	680	0.021	0.041	2860
13X35	2200	0.015	0.039	3400	1200	0.015	0.039	3400	820	0.019	0.039	2960
16X20	1800	0.018	0.045	3140	1800	0.018	0.045	3140	820	0.023	0.045	2730
16X25	2700	0.016	0.043	3460	2200	0.016	0.043	3460	1000	0.021	0.043	3010

WV(Vdc) Case Size: ΦDxL(mm)	63			80			100					
	Cap. (μF)	Impedance	Ripple Current	Cap. (μF)	Impedance	Ripple Current	Cap. (μF)	Impedance	Ripple Current			
5x11	15	0.88	3.5	165			6.8	1.4	5.6	125		
6.3X11	33	0.35	1.4	265			15	0.57	2.3	205		
8X11.5	56	0.22	0.88	500			27	0.36	1.4	355		
8X15	82	0.160	0.64	665			39	0.250	1	450		
8X20	120	0.120	0.48	820			56	0.190	0.76	565		
10X12.5	82	0.110	0.44	690	68	0.170	0.66	480	47	0.170	0.66	480
10X16	120	0.076	0.31	950	100	0.110	0.47	600	68	0.110	0.47	600
10X20	180	0.056	0.23	1150	120	0.084	0.34	800	82	0.084	0.34	800
10X25	220	0.046	0.19	1350	150	0.069	0.28	900	120	0.069	0.28	900
13X16	180	0.072	0.29	1150	150	0.110	0.34	750	100	0.110	0.34	750
13X20	270	0.041	0.13	1500	220	0.062	0.18	1100	150	0.062	0.18	1100
13X25	390	0.031	0.093	1900	330	0.047	0.14	1250	220	0.047	0.14	1250
13X30	470	0.028	0.084	2300	390	0.042	0.13	1500	270	0.042	0.13	1500
13X35	560	0.024	0.072	2500	470	0.036	0.11	1650	330	0.036	0.11	1650
13X40	680	0.021	0.063	2800	560	0.032	0.095	1800	390	0.032	0.095	1800
16X20	470	0.032	0.096	2000	330	0.048	0.15	1350	220	0.048	0.15	1350
16X25	680	0.025	0.075	2600	470	0.038	0.12	1700	330	0.038	0.12	1700
16X31.5	820	0.021	0.063	2850	680	0.032	0.095	1850	470	0.032	0.095	1850
16X35.5	1000	0.029	0.057	2900	820	0.029	0.086	2000	560	0.029	0.086	2000
16X40	1200	0.018	0.054	3400	1000	0.027	0.081	2200	680	0.027	0.081	2200
18X20	680	0.030	0.090	2500	470	0.045	0.140	1500	330	0.045	0.140	1500
18X25	820	0.024	0.072	2800	680	0.036	0.110	1750	470	0.036	0.110	1750
18X31.5	1200	0.020	0.060	3300	820	0.030	0.090	1900	560	0.030	0.090	1900
18X35.5	1500	0.018	0.054	3400	1000	0.027	0.081	2200	680	0.027	0.081	2200
18X40	1800	0.017	0.051	3500	1200	0.026	0.077	2700	820	0.026	0.077	2700

