

**ST**

Low impedance · Long life Series

- Endurance: 105°C 4000~10000hours
- Recommended Applications : Applicable for SMPS, Adaptor,Charger,Monitor/Computer
- Corresponding product to RoHS

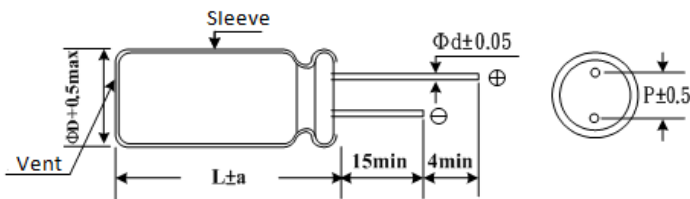
**ST**  
↑  
**SY** Long Life



**■ SPECIFICATIONS**

Item	Characteristics																																				
Category Temperature Range	-55 ~ +105°C																																				
Rated Voltage Range	6.3~100VDC																																				
Rated Capacitance Range	10 ~ 15000 µ F																																				
Capacitance Tolerance	± 20 % (120Hz , 20°C)																																				
Leakage Current (20°C)	I=0.01CV or 3 µ A whichever is greater. (After rated voltage applied for 2 minutes) I : Max. leakage current (µ A), C : Nominal capacitance (µ F), V : Rated voltage (V)																																				
Dissipation Factor(MAX) (tan δ ) (120Hz ,20°C)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>tan δ</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.14</td> <td>0.14</td> <td>0.14</td> </tr> </table> <p>When nominal capacitance is over 1000 µ F,tan δ shall be added 0.02 to the listed value with increase of every 1000 µ F. Down size tan δ add 3%.</p>	WV	6.3	10	16	25	35	50	63	100	tan δ	0.22	0.19	0.16	0.14	0.12	0.14	0.14	0.14																		
WV	6.3	10	16	25	35	50	63	100																													
tan δ	0.22	0.19	0.16	0.14	0.12	0.14	0.14	0.14																													
Low Temperature Stability Impedance Ratio (MAX)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Z(120Hz)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	WV	6.3	10	16	25	35	50	63	100	Z(120Hz)									Z-25°C / Z+20°C	4	3	2	2	2	2	2	2	Z-40°C / Z+20°C	8	6	4	3	3	3	3	3
WV	6.3	10	16	25	35	50	63	100																													
Z(120Hz)																																					
Z-25°C / Z+20°C	4	3	2	2	2	2	2	2																													
Z-40°C / Z+20°C	8	6	4	3	3	3	3	3																													
Endurance	<p>After applying rated voltage with rated ripple current for 4000~10000hours at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>Capacitance change</td> <td colspan="3">Within ± 25% of initial value</td> </tr> <tr> <td>D.F. (tan δ )</td> <td colspan="3">Not more than 200% of specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="3">initial specified value or less</td> </tr> </table> <table border="1"> <tr> <td>Φ D</td> <td>5~6.3 Φ</td> <td>8~10 Φ</td> <td>12.5~18 Φ</td> </tr> <tr> <td>6.3~10(V)</td> <td>4000hrs</td> <td>6000hrs</td> <td>8000hrs</td> </tr> <tr> <td>16~100(V)</td> <td>5000hrs</td> <td>7000hrs</td> <td>10000hrs</td> </tr> </table>	Capacitance change	Within ± 25% of initial value			D.F. (tan δ )	Not more than 200% of specified value			Leakage current	initial specified value or less			Φ D	5~6.3 Φ	8~10 Φ	12.5~18 Φ	6.3~10(V)	4000hrs	6000hrs	8000hrs	16~100(V)	5000hrs	7000hrs	10000hrs												
Capacitance change	Within ± 25% of initial value																																				
D.F. (tan δ )	Not more than 200% of specified value																																				
Leakage current	initial specified value or less																																				
Φ D	5~6.3 Φ	8~10 Φ	12.5~18 Φ																																		
6.3~10(V)	4000hrs	6000hrs	8000hrs																																		
16~100(V)	5000hrs	7000hrs	10000hrs																																		
Shelf Life	After placed at 105°C without voltage applied for 1000 hours,the capacitors shall meet the same requirement as load life.																																				

**■ Dimensions [mm]**



Φ D	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φ d	0.5	0.5	0.6	0.6	0.6	0.8	0.8
a	1.5	1.5	1.5	1.5	2.0	2.0	2.0

**■ Multiplier for Ripple Current**

Freq. (Hz)	120	1K	10K	100K
10~180	0.4	0.75	0.90	1.00
220~560	0.5	0.85	0.94	1.00
680~1800	0.6	0.87	0.95	1.00
2200~3900	0.75	0.90	0.95	1.00
4700 µ F Higher	0.85	0.95	0.98	1.00

■STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap (μF)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω,25°C) (100KHz)	Rated Voltage (SurageVoltage) (V)	Cap (μF)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω,25°C) (100KHz)
6.3(8)	150	5x11	210	0.720	25 (32)	2700	16x25	2930	0.028
	330	6.3x11	340	0.380		3300	16x32	3450	0.025
	680	8x11	640	0.200		3900	18x32	4170	0.015
	820	8x15	840	0.160		4700	18x36	4280	0.014
	1000	10x12	865	0.120	35 (44)	33	5x11	210	0.720
	1500	8x20	1050	0.110		47	6.3x11	340	0.380
		10x15	1210	0.084		150	8x11	640	0.200
	2200	10x20	1400	0.062		220	8x15	840	0.160
	2700	10x25	1650	0.052		330	10x20	1400	0.062
	3300	13x20	1900	0.046		470	10x25	1650	0.052
	3900	13x25	2230	0.034		680	10x30	1910	0.044
	4700	13x30	2650	0.030			13x20	1900	0.046
	5600	13x35	2880	0.027		820	13x25	2230	0.045
	6800	13x40	3350	0.024		1000	13x25	2230	0.045
		16x25	2930	0.028		1200	13x30	2650	0.030
	8200	16x32	3450	0.025		1500	13x35	2880	0.027
10000	16x36	3610	0.018	1800		13x40	3350	0.024	
12000	18x32	4170	0.015	2200		16x32	3450	0.025	
15000	18x36	4220	0.014	2700		16x36	3610	0.022	
10(13)	100	5x11	210	0.72		3300	18x36	4220	0.020
	220	6.3x11	340	0.38	50 (63)	10	5x11	120	3.50
	470	8x11	640	0.200		22	5x11	210	2.300
	680	8x15	840	0.160		33	6.3x11	340	1.200
	1000	10x15	1210	0.084		47	6.3x11	340	1.200
	1500	10x20	1400	0.062		100	8x11	555	0.630
	2200	10x25	1650	0.052		120	8x15	730	0.450
	2700	13x20	1900	0.046		150	8x20	910	0.330
	3300	13x25	2230	0.034		220	10x16	1050	0.310
	3900	13x30	2650	0.030		330	10x20	1400	0.210
	4700	13x35	2880	0.027		470	10x30	1690	0.150
	5600	13x40	3350	0.024			13x20	1660	0.160
		16x25	2930	0.028		560	13x25	1950	0.120
	6800	16x32	3450	0.025		680	13x30	2310	0.100
	8200	16x36	3610	0.018		820	13x35	2510	0.083
	10000	18x36	4220	0.014		1000	16x25	2555	0.073
16 (20)	56	5x11	210	0.720		1200	16x32	3010	0.054
	100	6.3x11	340	0.380	1500	16x36	3150	0.045	
	220	8x11	640	0.200	1800	18x32	3635	0.047	
	330	8x15	701	0.160	2200	18x36	3680	0.040	
	470	8x15	840	0.160	2700	18x40	3800	0.036	
	680	10x15	1210	0.084	63 (79)	10	5x11	55	2.300
	1000	10x20	1400	0.062		33	6.3x11	115	1.200
	1500	10x25	1650	0.052		56	8x11	232	0.630
	2200	13x25	2230	0.034		120	10x16	357	0.310
	2700	13x30	2650	0.030		180	10x20	466	0.210
	3300	13x35	2880	0.027		220	10x25	531	0.200
	3900	13x40	3350	0.024		270	10x30	663	0.150
	4700	16x32	3450	0.028			13x20	690	0.160
	5600	16x36	3610	0.018		330	13x25	784	0.120
		18x32	4170	0.015		470	13x30	905	0.100
	6800	18x36	4220	0.014		560	13x35	1050	0.083
25 (32)	47	5x11	210	0.720		680	13x40	1180	0.071
	100	6.3x11	340	0.380		820	16x32	1570	0.054
	150	8x11	640	0.200		1000	16x36	1790	0.045
	220	8x11	640	0.200		1200	16x40	2020	0.040
	330	8x15	840	0.160		100 (125)	10	6.3x11	55
	470	10x15	1210	0.084	15		6.3x11	70	5.000
	680	10x20	1400	0.062	22		8x11	85	2.700
	820	10x25	1650	0.052	33		8x11	95	2.500
	1000	13x20	1900	0.046	47		8x15	150	1.800
	1500	13x25	2230	0.034	56		8x20	200	1.500
	2200	13x35	2880	0.027	68		10x15	230	1.300

**ST**

Low impedance · Long life Series

■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap ( $\mu$ F)	Case size $\Phi$ D $\times$ L(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance ( $\Omega$ ,25°C) (100KHz)
100 (125)	82	10x20	250	1.200
	100	10x20	330	0.950
	120	10x25	400	0.800
	150	13x20	460	0.900
	220	13x25	640	0.600
	330	16x25	720	0.570

Rated Voltage (SurageVoltage) (V)	Cap ( $\mu$ F)	Case size $\Phi$ D $\times$ L(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance ( $\Omega$ ,25°C) (100KHz)
100 (125)	470	16x32	770	0.550
		18x25	840	0.500
	680	18x36	1400	0.180
	820	18x40	1850	0.130
	1000	18x40	1850	0.130