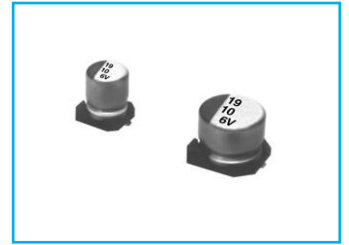


## SC Chip type, Standard Series

**S**  
Solvent Proof  
WV ≤ 100V



- Chip type higher capacitance in larger case size
- Designed for surface mounting on high density PC board
- Applicable to automatic insertion machine using carrier tape
- Complied to the RoHS directive

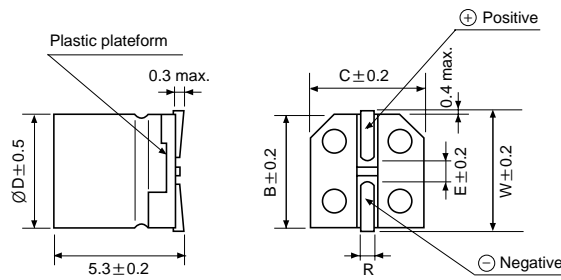
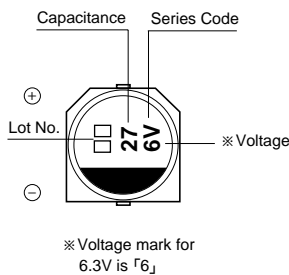


Item	Characteristics																														
Operating temperature range	-40 ~ +85°C																														
Leakage current max.	WV ≤ 100 I = 0.01CV or 3μA whichever is greater (after 2 minutes) WV ≥ 160 I = 0.04CV + 100μA (after 1 minutes)																														
Capacitance tolerance	±20% at 120Hz, 20°C																														
Dissipation factor max. (at 120Hz, 20°C)	<table border="1"> <tr> <td>WV</td> <td>4</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> <td>160</td> <td>200</td> <td>250</td> <td>400</td> <td>450</td> </tr> <tr> <td>tanδ</td> <td>0.35 (0.40)</td> <td>0.28 (0.35)</td> <td>0.20 (0.24)</td> <td>0.16 (0.20)</td> <td>0.13 (0.16)</td> <td>0.12 (0.15)</td> <td>0.09 (0.12)</td> <td>0.12</td> <td>0.12</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.25</td> <td>0.25</td> </tr> </table> <p>( ) : Small size between two size in dimension table and over the 6.3×5.8(∅D×L)</p>	WV	4	6.3	10	16	25	35	50	63	100	160	200	250	400	450	tanδ	0.35 (0.40)	0.28 (0.35)	0.20 (0.24)	0.16 (0.20)	0.13 (0.16)	0.12 (0.15)	0.09 (0.12)	0.12	0.12	0.20	0.20	0.20	0.25	0.25
WV	4	6.3	10	16	25	35	50	63	100	160	200	250	400	450																	
tanδ	0.35 (0.40)	0.28 (0.35)	0.20 (0.24)	0.16 (0.20)	0.13 (0.16)	0.12 (0.15)	0.09 (0.12)	0.12	0.12	0.20	0.20	0.20	0.25	0.25																	
Low temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>WV</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35 ~ 100</td> <td>160 ~ 250</td> <td>400 ~ 450</td> </tr> <tr> <td>Z-25°C/Z+20°C</td> <td>6</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>3</td> <td>6</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>12</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>6</td> <td>10</td> </tr> </table>	WV	4	6.3	10	16	25	35 ~ 100	160 ~ 250	400 ~ 450	Z-25°C/Z+20°C	6	5	4	3	2	2	3	6	Z-40°C/Z+20°C	12	10	8	6	4	3	6	10			
WV	4	6.3	10	16	25	35 ~ 100	160 ~ 250	400 ~ 450																							
Z-25°C/Z+20°C	6	5	4	3	2	2	3	6																							
Z-40°C/Z+20°C	12	10	8	6	4	3	6	10																							
Load life (after application of the rated voltage for 2000 hours at 85°C)	<table border="1"> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within ±20% of initial value (Small size : ±25%)</td> </tr> <tr> <td>tanδ</td> <td>Less than 200% of the specified value</td> </tr> </table>	Leakage current	Less than specified value	Capacitance change	Within ±20% of initial value (Small size : ±25%)	tanδ	Less than 200% of the specified value																								
Leakage current	Less than specified value																														
Capacitance change	Within ±20% of initial value (Small size : ±25%)																														
tanδ	Less than 200% of the specified value																														
Shelf life (at 85°C)	After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value.																														
Resistance to soldering heat	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at 250°C for 30 seconds.</p> <table border="1"> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within ±10% of initial value</td> </tr> <tr> <td>tanδ</td> <td>Less than specified value</td> </tr> </table>	Leakage current	Less than specified value	Capacitance change	Within ±10% of initial value	tanδ	Less than specified value																								
Leakage current	Less than specified value																														
Capacitance change	Within ±10% of initial value																														
tanδ	Less than specified value																														

### DRAWING

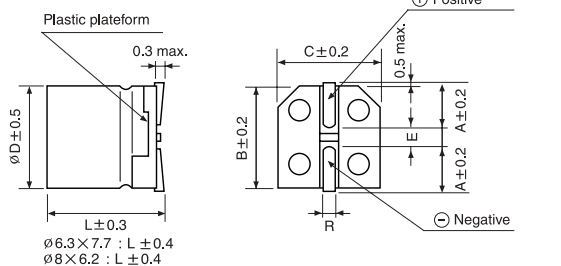
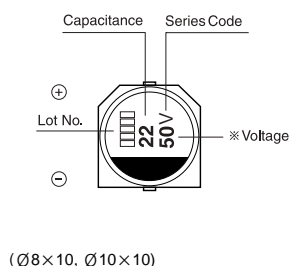
Unit : mm

(∅4, ∅5, ∅6.3×5.3mmL)

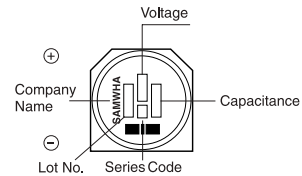


∅D×L	W	A	B	C	E	R
4×5.3	4.8		4.3	4.3	1.0	0.5~0.8
5×5.3	6.0		5.3	5.3	1.4	0.5~0.8
6.3×5.8	7.1		6.6	6.6	2.2	0.5~0.8
6.3×7.7		2.4	6.6	6.6	2.2	0.5~0.8
8×6.2		3.3	8.3	8.3	2.3	0.5~0.8
8×10		2.9	8.3	8.3	3.1	0.8~1.1
10×10		3.2	10.3	10.3	4.5	0.8~1.1
12.5×13.5		4.6	12.8	12.8	4.5	1.1~1.4
16×16.5		5.6	16.8	16.8	6.5	1.1~1.4
16×21.5		5.6	16.8	16.8	6.5	1.1~1.4
18×16.5		6.6	18.8	18.8	6.5	1.1~1.4
18×21.5		6.6	18.8	18.8	6.5	1.1~1.4

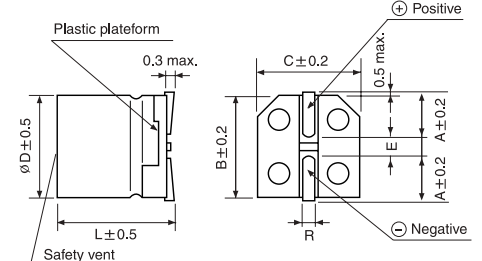
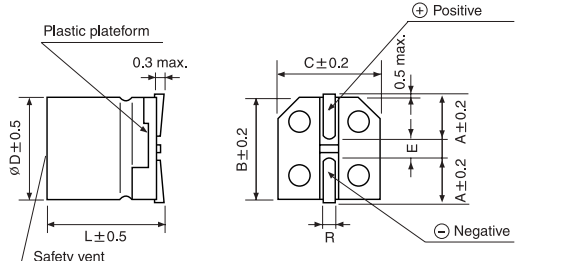
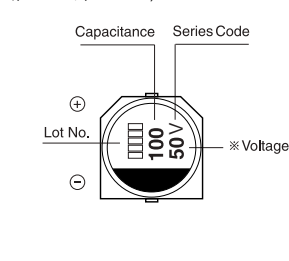
(∅6.3, ∅8×6.2)



(∅12.5~18)



(∅8×10, ∅10×10)



● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

μF	WV	4		6.3		10		16		25		35		50	
		Case size	Capacitance	Case size	Capacitance	Case size	Capacitance	Case size	Capacitance	Case size	Capacitance	Case size	Capacitance	Case size	Capacitance
0.1														3×5.3	2.4
														4×5.3	3.2
0.22														3×5.3	3.5
														4×5.3	4.7
0.33														3×5.3	4.3
														4×5.3	5.7
0.47														3×5.3	5.2
														4×5.3	6.8
1.0														3×5.3	7.5
														4×5.3	10
2.2													3×5.3	10	4×5.3
													4×5.3	11	
3.3													3×5.3	12	4×5.3
													4×5.3	15	
4.7													3×5.3	13	4×5.3
													4×5.3	16	
10		3×5.3	13	3×5.3	16	4×5.3	21	4×5.3	21	4×5.3	24	4×5.3	27	5×5.3	41
		4×5.3	16	4×5.3	19	4×5.3	21	5×5.3	30	5×5.3	32	6.3×5.3	43	6.3×5.3	71
22		3×5.3	19	4×5.3	29	4×5.3	28	4×5.3	30	5×5.3	41	6.3×5.3	55	6.3×5.3	71
		4×5.3	24	4×5.3	29	5×5.3	36	5×5.3	41	6.3×5.3	53	6.3×5.3	55	6.3×5.8	73
33		4×5.3	29	4×5.3	30	4×5.3	34	5×5.3	43	5×5.3	50	6.3×5.3	65	6.3×7.7	94
				5×5.3	41	5×5.3	44	6.3×5.3	58	6.3×5.3	64	6.3×5.8	67	8×6.2	95
47		4×5.3	35	4×5.3	36	5×5.3	47	5×5.3	52	6.3×5.3	70	6.3×7.7	94	6.3×7.7	105
				5×5.3	48	6.3×5.3	62	6.3×5.3	69	6.3×5.8	72	8×6.2	105	8×10	140
100		5×5.3	54	5×5.3	60	6.3×5.3	80	6.3×5.3	88	8×6.2	145	6.3×7.7	132	8×10	181
		6.3×5.3	68	6.3×5.3	82	6.3×5.8	82	6.3×5.8	91	8×10	175	10×10	195	10×10	195
220		6.3×5.3	93	6.3×5.8	91	6.3×7.7	173	6.3×7.7	162	8×10	232	10×10	265	10×10	320
				8×6.2	175	8×10	215	10×10	250	10×10	265	10×10	320	10×10	320
330				6.3×7.7	188	8×10	240	8×10	270	10×10	305	10×10	360	12.5×13.5	600
				8×6.2	190	8×10	240	8×10	270	10×10	305	10×10	360	12.5×13.5	600
470				8×10	265	8×10	290	8×10	307	10×10	400	12.5×13.5	600	16×16.5	740
				10×10	330	10×10	400	12.5×13.5	600	16×16.5	740	16×16.5	740	16×16.5	740
1000				8×10	370	10×10	454	12.5×13.5	710	12.5×13.5	820	16×16.5	1000	18×21.5	1150
				10×10	400	10×10	454	12.5×13.5	710	12.5×13.5	820	16×16.5	1000	18×21.5	1150
1500				10×10	480	12.5×13.5	850	12.5×13.5	870	16×16.5	1060	16×21.5	1170	18×16.5	1170
				12.5×13.5	890	12.5×13.5	960	16×16.5	1150	16×21.5	1350	18×21.5	1550	18×16.5	1550
2200				12.5×13.5	890	12.5×13.5	960	16×16.5	1150	16×21.5	1350	18×21.5	1550	18×16.5	1550
				16×16.5	1200	16×16.5	1300	16×21.5	1450	18×21.5	1700	18×21.5	1700	18×16.5	1700
3300				16×16.5	1200	16×16.5	1300	16×21.5	1450	18×21.5	1700	18×21.5	1700	18×16.5	1700
				16×16.5	1400	16×21.5	1500	18×21.5	1750	18×21.5	1750	18×21.5	1750	18×16.5	1750
4700				16×16.5	1400	16×21.5	1500	18×21.5	1750	18×21.5	1750	18×21.5	1750	18×16.5	1750
				16×21.5	1650	18×21.5	1850	18×21.5	1850	18×21.5	1850	18×21.5	1850	18×16.5	1850
6800				16×21.5	1650	18×21.5	1850	18×21.5	1850	18×21.5	1850	18×21.5	1850	18×16.5	1850
				18×16.5	1650	18×21.5	1850	18×21.5	1850	18×21.5	1850	18×21.5	1850	18×16.5	1850
10000				18×21.5	2000	18×21.5	2000	18×21.5	2000	18×21.5	2000	18×21.5	2000	18×21.5	2000
				18×21.5	2000	18×21.5	2000	18×21.5	2000	18×21.5	2000	18×21.5	2000	18×21.5	2000

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

μF	WV	63		100		160		200		250		400		450	
		Case size	Capacitance	Case size	Capacitance	Case size	Capacitance	Case size	Capacitance	Case size	Capacitance	Case size	Capacitance	Case size	Capacitance
2.2														10×10	85
3.3				6.5×5.8	29					10×10	90	10×10	90	10×10	100
4.7	6.3×5.8	31		6.3×5.8	35					10×10	100	10×10	100	12.5×13.5	115
				8×6.2	40					10×10	100	10×10	100	12.5×13.5	115
10	6.3×5.8	46		8×10	77	10×10	100	12.5×13.5	150	12.5×13.5	150	16×16.5	140	16×16.5	140
22	8×6.2	96		8×10	100	12.5×13.5	240	12.5×13.5	260	16×16.5	300	16×21.5	280	16×21.5	275
				18×16.5	280	18×16.5	280	18×16.5	280	18×16.5	280	18×16.5	280	18×16.5	275
33	8×10	117		10×10	130	12.5×13.5	260	16×16.5	350	16×16.5	340	18×21.5	350	18×21.5	345
47	10×10	140		10×10	155	16×16.5	400	16×16.5	415	16×21.5	415	18×16.5	415		
				18×16.5	415	18×16.5	415	18×16.5	415	18×16.5	415	18×16.5	415		
68	10×10	160		12.5×13.5	350	16×16.5	500	16×21.5	505	18×21.5	490				
				18×16.5	505	18×16.5	505	18×16.5	505	18×16.5	505				
100	12.5×13.5	370		12.5×13.5	420	16×21.5	590	18×21.5	590						
				18×16.5	590	18×16.5	590	18×16.5	590						
220	12.5×13.5	550		16×21.5	665										
				18×16.5	665										
330	16×16.5	680		18×21.5	825										
470	18×21.5	850													

↑ Ripple current (mA rms) at 85°C, 120Hz  
 ↑ Case size ØD x L (mm)