

USC SERIES

85°C Standard, Snap-in Terminal Type

◆FEATURES

- Load Life : 85°C 3000 hours.
- Smaller size with higher ripple current endurance than USR series.
- RoHS compliance.



◆SPECIFICATIONS

Items	Characteristics																																
Category Temperature Range	-40~+85℃								-25~+85℃																								
Rated Voltage Range	10~250V.DC								315~450V.DC																								
Capacitance Tolerance	±20% (20℃,120Hz)																																
Leakage Current(MAX)	I=3√CV (After 5 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)																																
(tanδ) Dissipation Factor(MAX)	<table><tr><td>Rated Voltage (V)</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td><td>160~400</td><td>420~450</td></tr><tr><td>tanδ</td><td>0.55</td><td>0.50</td><td>0.45</td><td>0.40</td><td>0.35</td><td>0.30</td><td>0.25</td><td>0.20</td><td>0.15</td><td>0.25</td></tr></table> (20℃,120Hz)											Rated Voltage (V)	10	16	25	35	50	63	80	100	160~400	420~450	tanδ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.25
Rated Voltage (V)	10	16	25	35	50	63	80	100	160~400	420~450																							
tanδ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.25																							
Impedance Ratio(MAX)	<table><tr><td>Rated Voltage (V)</td><td>10~250</td><td>315~400</td><td>420~450</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>3</td><td>8</td><td>12</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>12</td><td>—</td><td>—</td></tr></table> (120Hz)											Rated Voltage (V)	10~250	315~400	420~450	Z(-25℃)/Z(20℃)	3	8	12	Z(-40℃)/Z(20℃)	12	—	—										
Rated Voltage (V)	10~250	315~400	420~450																														
Z(-25℃)/Z(20℃)	3	8	12																														
Z(-40℃)/Z(20℃)	12	—	—																														
Endurance	After applying rated voltage with rated ripple current for 3000hrs at 85℃, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td>Within ±20% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td>Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td>Not more than the specified value.</td></tr></table>											Capacitance Change	Within ±20% of the initial value.	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.																
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◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)	60(50)	120	500	1k	10k≤
Coefficient					
10~100WV	0.90	1.00	1.05	1.10	1.15
160~250WV	0.80	1.00	1.20	1.30	1.50
315~450WV	0.80	1.00	1.20	1.25	1.40

◆PART NUMBER

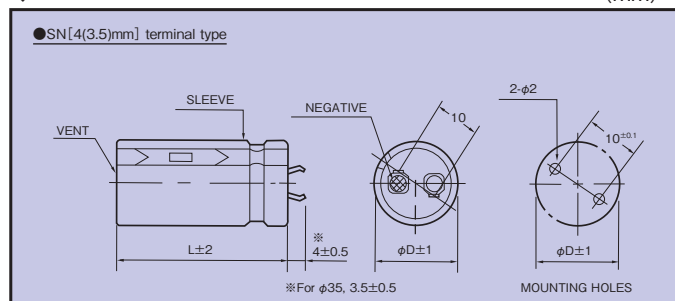
USC SN D×L
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆Option

	Code
PET Sleeve without plate	EFC
PVC Sleeve without plate	OOE
PVC Sleeve with plate	Blank

◆DIMENSIONS

(mm)



◆STANDARD SIZE

Cap (μ F)	WV ϕ D	10					16				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
8200							20x25: 2.56				
10000		20x25: 2.22					20x30: 2.85	22x25: 2.85			
12000		20x30: 2.44	22x25: 2.41				20x35: 3.20	22x30: 3.20			
15000		20x35: 2.90	22x30: 2.88	25x25: 2.88			20x40: 3.70	22x35: 3.70	25x25: 3.70		
18000		20x40: 3.31	22x35: 3.22	25x30: 3.08				22x40: 3.98	25x30: 3.98		
22000			22x40: 3.79	25x30: 3.66	30x25: 3.58			22x45: 4.52	25x35: 4.52	30x25: 4.52	
27000				25x35: 4.04	30x30: 3.99			22x50: 4.98	25x40: 4.98	30x30: 4.98	
33000			22x50: 4.58	25x40: 4.56	30x30: 4.58				25x45: 5.49	30x35: 5.49	35x30: 5.49
39000				25x45: 5.29	30x35: 5.21	35x30: 5.05			25x50: 6.11	30x40: 6.11	35x35: 6.11
47000				25x50: 5.78	30x40: 5.78	35x35: 5.55				30x45: 6.80	35x35: 6.80
56000					30x45: 6.59	35x35: 6.40				30x50: 7.62	35x40: 7.62
68000					30x50: 7.50	35x40: 7.48					35x45: 8.45
82000						35x50: 8.50					35x50: 9.14

Cap (μ F)	WV ϕ D	25					35				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
3300							20x25: 2.14				
3900							20x30: 2.28				
4700							20x35: 2.46	22x25: 2.46			
5600		20x25: 2.33					20x40: 2.79	22x30: 2.79	25x25: 2.79		
6800		20x30: 2.56	22x25: 2.56					22x35: 2.89	25x30: 2.89		
8200		20x35: 2.91	22x30: 2.91					22x40: 3.47	25x30: 3.47	30x25: 3.47	
10000		20x40: 3.18	22x35: 3.18	25x25: 3.18				22x45: 3.59	25x35: 3.59	30x30: 3.59	
12000			22x40: 3.53	25x30: 3.53				22x50: 4.51	25x40: 4.51	30x30: 4.51	
15000			22x45: 4.08	25x35: 4.08	30x25: 4.08				25x45: 4.80	30x35: 4.80	35x30: 4.80
18000			22x50: 4.68	25x40: 4.68	30x30: 4.68					30x40: 5.70	35x35: 5.70
22000				25x45: 5.19	30x35: 5.19	35x30: 5.19				30x45: 6.38	35x40: 6.38
27000				25x50: 6.02	30x40: 6.02	35x35: 6.02					35x45: 6.90
33000					30x45: 6.75	35x40: 6.75					35x50: 7.49
39000					30x50: 7.56	35x45: 7.56					
47000						35x50: 8.30					

Cap (μ F)	WV ϕ D	50					63				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
1500							20x25: 1.69				
1800							20x30: 2.04	22x25: 2.04			
2200		20x25: 2.07					20x35: 2.40	22x30: 2.40			
2700		20x30: 2.21	22x25: 2.21				20x40: 2.52	22x35: 2.52	25x25: 2.52		
3300		20x35: 2.41	22x30: 2.41					22x40: 2.69	25x30: 2.69		
3900		20x40: 2.72	22x30: 2.72	25x25: 2.72				22x45: 3.10	25x35: 3.10	30x25: 3.10	
4700			22x35: 3.01	25x30: 3.01				22x50: 3.49	25x40: 3.49	30x30: 3.49	
5600			22x40: 3.43	25x35: 3.43	30x25: 3.43				25x45: 3.81	30x35: 3.81	
6800			22x45: 3.94	25x35: 3.94	30x30: 3.94				25x50: 4.41	30x40: 4.41	35x30: 4.41
8200				25x40: 4.37	30x35: 4.37					30x45: 4.90	35x35: 4.90
10000				25x50: 5.02	30x40: 5.02	35x30: 5.02				30x50: 5.49	35x40: 5.49
12000					30x45: 5.60	35x35: 5.60					35x45: 6.30
15000					30x50: 6.44	35x40: 6.44					
18000						35x45: 6.71					

Cap (μ F)	WV ϕ D	80					100				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
680							20x25: 1.66				
820							20x30: 1.86	22x25: 1.86			
1000		20x25: 1.56					20x30: 2.02	22x30: 2.02			
1200		20x30: 1.80	22x25: 1.80				20x35: 2.12	22x30: 2.12	25x25: 2.12		
1500		20x30: 2.10	22x30: 2.10				20x40: 2.45	22x35: 2.45	25x30: 2.45		
1800		20x35: 2.30	22x30: 2.30	25x25: 2.30				22x40: 2.77	25x30: 2.77	30x25: 2.77	
2200		20x40: 2.53	22x35: 2.53	25x30: 2.53				22x45: 3.12	25x35: 3.12	30x30: 3.12	
2700			22x40: 2.93	25x35: 2.93	30x25: 2.93				25x40: 3.61	30x30: 3.61	
3300			22x45: 3.25	25x35: 3.25	30x30: 3.25				25x50: 4.06	30x35: 4.06	35x30: 4.06
3900				25x40: 3.62	30x35: 3.62					30x40: 4.60	35x35: 4.60
4700				25x45: 4.28	30x40: 4.28	35x30: 4.28				30x45: 5.13	35x40: 5.13
5600					30x45: 4.55	35x35: 4.55					35x45: 5.75
6800					30x45: 5.83	35x40: 5.83					35x50: 6.01
8200						35x45: 6.40					
10000						35x50: 7.03					

Ripple Current (A r.m.s./120Hz, 85°C)
Case Size ϕ D×L(mm)

◆STANDARD SIZE

Cap (μ F)	WV ϕ D	160					180				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
270		20×25:1.28					20×25:1.29				
330		20×25:1.55					20×30:1.77	22×25:1.49			
390		20×30:1.63	22×25:1.63				20×30:1.84	22×25:1.84			
470		20×30:1.90	22×30:1.86	25×25:1.86			20×35:1.91	22×30:1.91	25×25:2.08		
560		20×35:2.14	22×30:2.15	25×25:2.15			20×40:2.15	22×35:2.25	25×25:2.25		
680		20×40:2.35	22×35:2.35	25×30:2.33	30×25:2.33			22×35:2.48	25×30:2.50	30×25:2.46	
820			22×40:2.68	25×30:2.65	30×25:2.64			22×40:2.86	25×35:2.75	30×25:2.69	
1000			22×45:3.02	25×35:3.00	30×30:2.96			22×50:3.10	25×40:3.06	30×30:3.10	
1200				25×40:3.43	30×30:3.41	35×30:3.40			25×45:3.63	30×35:3.55	35×30:3.49
1500				25×50:3.96	30×35:3.96	35×30:3.94				30×40:4.10	35×35:4.02
1800					30×40:4.31	35×35:4.28				30×45:4.55	35×35:4.54
2200					30×50:4.96	35×40:4.96				35×40:4.83	
2700						35×45:5.57					35×50:5.30

Cap (μ F)	WV ϕ D	200					220				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
220		20×25:1.19					20×25:1.23				
270		20×25:1.39	22×25:1.37				20×30:1.46	22×25:1.42			
330		20×30:1.56	22×25:1.51				20×35:1.64	22×30:1.59			
390		20×35:1.74	22×30:1.73	25×25:1.71			20×35:1.79	22×30:1.80	25×25:1.75		
470		20×35:2.03	22×30:1.97	25×25:1.95			20×40:2.12	22×35:2.06	25×30:2.08		
560		20×40:2.18	22×35:2.18	25×30:2.15	30×25:2.15			22×40:2.22	25×35:2.38	30×25:2.18	
680			22×40:2.48	25×30:2.48	30×25:2.48			22×45:2.62	25×35:2.56	30×30:2.52	
820			22×45:2.81	25×35:2.79	30×30:2.75			25×45:2.91	30×35:2.84	35×30:2.79	
1000			22×50:3.28	25×40:3.28	30×35:3.15				30×35:3.36	35×30:3.29	
1200				25×45:3.61	30×35:3.61	35×30:3.57				30×40:3.72	35×35:3.68
1500					30×45:4.13	35×35:4.06				30×50:4.18	35×40:4.10
1800					30×50:4.60	35×40:4.59					35×45:4.52
2200						35×45:5.25					

Cap (μ F)	WV ϕ D	250					315				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
150							20×30:1.00				
180		20×25:1.20					20×35:1.13	22×30:1.29	25×25:1.38		
220		20×25:1.26	22×25:1.24				20×35:1.29	22×30:1.41	25×25:1.47		
270		20×30:1.42	22×25:1.50					22×35:1.68	25×30:1.70		
330		20×35:1.68	22×30:1.66	25×25:1.61				22×40:1.91	25×35:1.94	30×25:1.98	
390		20×40:1.92	22×35:1.88	25×30:1.88				22×45:2.07	25×40:2.11	30×30:2.15	
470			22×35:2.15	25×35:2.15	30×25:2.04				25×50:2.31	30×35:2.38	35×30:2.36
560			22×40:2.48	25×35:2.35	30×25:2.35					30×35:2.63	35×30:2.69
680				25×40:2.67	30×30:2.71					30×45:2.80	35×35:3.05
820				25×45:3.01	30×35:2.98	35×30:2.96				30×50:3.28	35×40:3.45
1000					30×40:3.56	35×35:3.48					35×45:3.57
1200					30×45:3.99	35×35:3.84					
1500						35×40:4.33					
1800						35×50:4.54					

Cap (μ F)	WV ϕ D	350					385				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
68							20×25:0.68				
82							20×30:0.74	22×25:0.76			
100							20×30:0.86	22×30:0.89			
120		20×30:0.96	22×25:1.04				20×35:0.96	22×30:0.98	25×25:1.02		
150		20×30:1.10	22×30:1.20	25×25:1.22			20×35:1.10	22×35:1.12	25×30:1.14		
180		20×35:1.24	22×30:1.34	25×25:1.37			20×40:1.27	22×35:1.27	25×30:1.30	30×25:1.37	
220			22×35:1.47	25×30:1.53	30×25:1.54			22×40:1.42	25×35:1.48	30×30:1.49	
270			22×40:1.70	25×35:1.73	30×25:1.80			22×50:1.60	25×40:1.61	30×30:1.64	
330			22×45:1.87	25×35:1.97	30×30:2.03				25×45:1.80	30×35:1.85	35×30:1.87
390				25×40:2.14	30×35:2.23	35×30:2.30			25×50:2.04	30×40:2.05	35×35:2.07
470				25×50:2.55	30×35:2.53	35×30:2.55				30×45:2.26	35×35:2.26
560					30×40:2.73	35×35:2.75				30×50:2.57	35×40:2.59
680					30×50:3.15	35×40:3.15					35×45:2.80
820						35×45:3.47					
1000						35×50:3.60					

Ripple Current (A r.m.s./120Hz, 85°C)
Case Size ϕ D×L(mm)

◆STANDARD SIZE

Cap (μ F)	WV ϕ D	400					420				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
68		20×25; 0.75					20×25; 0.70				
82		20×30; 0.82	22×25; 0.84				20×30; 0.80	22×25; 0.85			
100		20×30; 0.95	22×30; 0.99				20×35; 0.90	22×30; 0.97	25×25; 0.98		
120		20×35; 1.07	22×30; 1.09	25×25; 1.13			20×35; 1.04	22×30; 1.07	25×25; 1.08		
150		20×40; 1.22	22×35; 1.24	25×30; 1.27			20×40; 1.17	22×35; 1.21	25×30; 1.26	30×25; 1.30	
180			22×40; 1.41	25×30; 1.44	30×25; 1.52			22×40; 1.33	25×35; 1.42	30×25; 1.48	
220			22×45; 1.58	25×35; 1.64	30×30; 1.66			22×45; 1.55	25×35; 1.58	30×30; 1.65	
270				25×40; 1.79	30×30; 1.82				25×40; 1.74	30×35; 1.90	35×30; 1.94
330				25×45; 2.00	30×35; 2.05	35×30; 2.05			25×50; 2.20	30×35; 1.98	35×35; 2.17
390					30×40; 2.26	35×35; 2.28				30×40; 2.22	35×35; 2.27
470					30×45; 2.51	35×40; 2.54				30×45; 2.50	35×40; 2.61
560					30×50; 2.85	35×40; 2.85					35×45; 2.95
680						35×50; 3.10					

Cap (μ F)	WV ϕ D	450				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
56		20×25; 0.61				
68		20×30; 0.70	22×25; 0.71			
82		20×35; 0.80	22×25; 0.86			
100		20×35; 0.88	22×30; 0.95	25×25; 0.97		
120		20×40; 0.99	22×35; 1.07	25×30; 1.09	30×25; 1.12	
150			22×40; 1.18	25×30; 1.25	30×25; 1.29	
180			22×45; 1.32	25×35; 1.40	30×30; 1.45	
220				25×40; 1.59	30×30; 1.64	35×30; 1.66
270				25×45; 1.73	30×35; 1.89	35×30; 1.90
330				25×50; 2.12	30×40; 2.12	35×35; 2.15
390					30×45; 2.35	35×40; 2.38
470					30×50; 2.65	35×45; 2.68
560						35×50; 2.88

Ripple Current (A r.m.s./120Hz, 85°C)

Case Size ϕ D×L(mm)