

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(μ A) V=Rated Voltage(V) C=Rated Capacitance(μ F)																																
Dissipation Factor(MAX) (tan δ)	<table border="1"><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>tan δ</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	tan δ	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																							
tan δ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.25																							
Impedance Ratio(MAX)	<table border="1"><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 border="1"><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

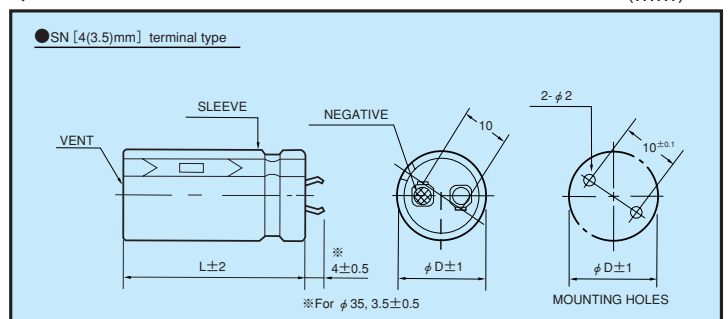
□□□ USC □□□□□ □ OOE SN DXL
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆Option

	Code
without plate	OOE
with plate	Blank

◆DIMENSIONS

(mm)



◆STANDARD SIZE, RATED RIPPLE CURRENT

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							20×25; 2.56				
10000		20×25; 2.22					20×30; 2.85	22×25; 2.85			
12000		20×30; 2.44					20×35; 3.20	22×30; 3.20			
15000		20×35; 2.90	22×30; 2.88	25×25; 2.88			20×40; 3.70	22×35; 3.70	25×25; 3.70		
18000		20×40; 3.31	22×35; 3.22	25×30; 3.08				22×40; 3.98	25×30; 3.98		
22000			22×40; 3.79	25×30; 3.66	30×25; 3.58			22×45; 4.52	25×35; 4.52	30×25; 4.52	
27000			22×45; 4.04	25×35; 4.04	30×30; 3.99			22×50; 4.98	25×40; 4.98	30×30; 4.98	
33000			22×50; 4.58	25×40; 4.56	30×30; 4.58				25×45; 5.49	30×35; 5.49	35×30; 5.49
39000				25×45; 5.29	30×35; 5.21	35×30; 5.05			25×50; 6.11	30×40; 6.11	35×35; 6.11
47000				25×50; 5.78	30×40; 5.78	35×35; 5.55				30×45; 6.80	35×35; 6.80
56000					30×45; 6.59	35×35; 6.40				30×50; 7.62	35×40; 7.62
68000					30×50; 7.50	35×40; 7.48					35×45; 8.45
82000						35×50; 8.50					35×50; 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							20×25; 2.14				
3900							20×30; 2.28				
4700							20×35; 2.46	22×25; 2.46			
5600		20×25; 2.33					20×40; 2.79	22×30; 2.79	25×25; 2.79		
6800		20×30; 2.56	22×25; 2.56					22×35; 2.89	25×30; 2.89		
8200		20×35; 2.91	22×30; 2.91					22×40; 3.47	25×30; 3.47	30×25; 3.47	
10000		20×40; 3.18	22×35; 3.18	25×25; 3.18				22×45; 3.59	25×35; 3.59	30×30; 3.59	
12000			22×40; 3.53	25×30; 3.53				22×50; 4.51	25×40; 4.51	30×30; 4.51	
15000			22×45; 4.08	25×35; 4.08	30×25; 4.08				25×45; 4.80	30×35; 4.80	35×30; 4.80
18000			22×50; 4.68	25×40; 4.68	30×30; 4.68					30×40; 5.70	35×35; 5.70
22000				25×45; 5.19	30×35; 5.19	35×30; 5.19				30×45; 6.38	35×40; 6.38
27000				25×50; 6.02	30×40; 6.02	35×35; 6.02					35×45; 6.90
33000					30×45; 6.75	35×40; 6.75					35×50; 7.49
39000					30×50; 7.56	35×45; 7.56					
47000						35×50; 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							20×25; 1.69				
1800							20×30; 2.04	22×25; 2.04			
2200		20×25; 2.07					20×35; 2.40	22×30; 2.40			
2700		20×30; 2.21	22×25; 2.21				20×40; 2.52	22×35; 2.52	25×25; 2.52		
3300		20×35; 2.41	22×30; 2.41					22×40; 2.69	25×30; 2.69		
3900		20×40; 2.72	22×30; 2.72	25×25; 2.72				22×45; 3.10	25×35; 3.10	30×25; 3.10	
4700			22×35; 3.01	25×30; 3.01				22×50; 3.49	25×40; 3.49	30×30; 3.49	
5600			22×40; 3.43	25×35; 3.43	30×25; 3.43				25×45; 3.81	30×35; 3.81	
6800			22×45; 3.94	25×35; 3.94	30×30; 3.94				25×50; 4.41	30×40; 4.41	35×30; 4.41
8200				25×40; 4.37	30×35; 4.37					30×45; 4.90	35×35; 4.90
10000				25×50; 5.02	30×40; 5.02	35×30; 5.02				30×50; 5.49	35×40; 5.49
12000					30×45; 5.60	35×35; 5.60					35×45; 6.30
15000					30×50; 6.44	35×40; 6.44					
18000						35×45; 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							20×25; 1.66				
820							20×30; 1.86	22×25; 1.86			
1000		20×25; 1.56					20×30; 2.02	22×30; 2.02			
1200		20×30; 1.80	22×25; 1.80				20×35; 2.12	22×30; 2.12	25×25; 2.12		
1500		20×30; 2.10	22×30; 2.10				20×40; 2.45	22×35; 2.45	25×30; 2.45		
1800		20×35; 2.30	22×30; 2.30	25×25; 2.30				22×40; 2.77	25×30; 2.77	30×25; 2.77	
2200		20×40; 2.53	22×35; 2.53	25×30; 2.53				22×45; 3.12	25×35; 3.12	30×30; 3.12	
2700			22×40; 2.93	25×35; 2.93	30×25; 2.93				25×40; 3.61	30×30; 3.61	
3300			22×45; 3.25	25×35; 3.25	30×30; 3.25				25×50; 4.06	30×35; 4.06	35×30; 4.06
3900				25×40; 3.62	30×35; 3.62					30×40; 4.60	35×35; 4.60
4700				25×45; 4.28	30×40; 4.28	35×30; 4.28				30×45; 5.13	35×40; 5.13
5600					30×45; 4.55	35×35; 4.55					35×45; 5.75
6800					30×45; 5.83	35×40; 5.83					35×50; 6.01
8200						35×45; 6.40					
10000						35×50; 7.03					

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

◆ STANDARD SIZE, RATED RIPPLE CURRENT

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, RATED RIPPLE CURRENT

Cap (μF)	WV ϕD	400					420				
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$
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 (μF)	WV ϕD	450				
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$
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 $\phi D \times L$ (mm)