



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°C	-25 ~ +85°C																						
Rated Voltage Range	10~250V.DC	315~450V.DC																						
Capacitance Tolerance	±20%(20°C, 120Hz)																							
Leakage Current(MAX)	$I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) I=Leakage Current(µA) V=Rated Voltage(V) C=Rated Capacitance(µF)																							
Dissipation Factor(MAX) (tanδ)	<table border="1"> <thead> <tr> <th>Rated Voltage(V)</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>160~400</th> <th>420~450</th> </tr> </thead> <tbody> <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> </tbody> </table> (20°C, 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 border="1"> <thead> <tr> <th>Rated Voltage(V)</th> <th>10~250</th> <th>315~400</th> <th>420~450</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>8</td> <td>12</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>—</td> <td>—</td> </tr> </tbody> </table> (120Hz)		Rated Voltage(V)	10~250	315~400	420~450	Z(-25°C)/Z(20°C)	3	8	12	Z(-40°C)/Z(20°C)	12	—	—										
Rated Voltage(V)	10~250	315~400	420~450																					
Z(-25°C)/Z(20°C)	3	8	12																					
Z(-40°C)/Z(20°C)	12	—	—																					
Endurance	After applying rated voltage with rated ripple current for 3000hrs at 85°C, the capacitors shall meet the following requirements. <table border="1"> <tbody> <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> </tbody> </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

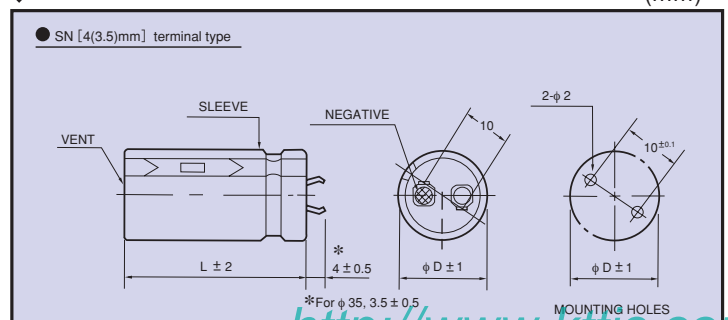
USC SN D×L
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆ Option

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

◆ DIMENSIONS

(mm)





◆ STANDARD SIZE

Cap (μF) \ 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	22×25	2.41		20×35	3.20	22×30	3.20		
15000	20×35	2.90	22×30	2.88	25×25	2.88					
18000	20×40	3.31	22×35	3.22	25×30	3.08					
22000			22×40	3.79	25×30	3.66	30×25	3.58			
27000			22×45	4.04	25×35	4.04	30×30	3.99			
33000			22×50	4.58	25×40	4.56	30×30	4.58			
39000					25×45	5.29	30×35	5.21	35×30	5.05	
47000					25×50	5.78	30×40	5.78	35×35	5.55	
56000							30×45	6.59	35×35	6.40	
68000							30×50	7.50	35×40	7.48	
82000										35×50	8.50

Cap (μF) \ 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
10000	20×40	3.18	22×35	3.18	25×25	3.18		22×45	3.59	25×35	3.59
12000			22×40	3.53	25×30	3.53		22×50	4.51	25×40	4.51
15000			22×45	4.08	25×35	4.08	30×25	4.08		25×45	4.80
18000			22×50	4.68	25×40	4.68	30×30	4.68		30×35	4.80
22000					25×45	5.19	30×35	5.19	35×30	5.19	
27000					25×50	6.02	30×40	6.02	35×35	6.02	
33000							30×45	6.75	35×40	6.75	
39000							30×50	7.56	35×45	7.56	
47000									35×50	8.30	

Cap (μF) \ 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
4700			22×35	3.01	25×30	3.01		22×50	3.49	25×40	3.49
5600			22×40	3.43	25×35	3.43	30×25	3.43		25×45	3.81
6800			22×45	3.94	25×35	3.94	30×30	3.94		25×50	4.41
8200					25×40	4.37	30×35	4.37		30×45	4.90
10000					25×50	5.02	30×40	5.02	35×30	5.02	
12000							30×45	5.60	35×35	5.60	
15000							30×50	6.44	35×40	6.44	
18000									35×45	6.71	

Cap (μF) \ 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
2200	20×40	2.53	22×35	2.53	25×30	2.53		22×45	3.12	25×35	3.12
2700			22×40	2.93	25×35	2.93	30×25	2.93		25×40	3.61
3300			22×45	3.25	25×35	3.25	30×30	3.25		25×50	4.06
3900					25×40	3.62	30×35	3.62		30×40	4.60
4700					25×45	4.28	30×40	4.28	35×30	4.28	
5600							30×45	4.55	35×35	4.55	
6800							30×45	5.83	35×40	5.83	
8200									35×45	6.40	
10000									35×50	7.03	

↑ Ripple Current (A r.m.s./120Hz, 105°C)
 ↑ Case Size φ D×L(mm)



◆ STANDARD SIZE

Cap (μF) \ 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	20x25:1.28					20x25:1.29				
330	20x25:1.55					20x30:1.77	22x25:1.49			
390	20x30:1.63	22x25:1.63				20x30:1.84	22x25:1.84			
470	20x30:1.90	22x30:1.86	25x25:1.86			20x35:1.91	22x30:1.91	25x25:2.08		
560	20x35:2.14	22x30:2.15	25x25:2.15			20x40:2.15	22x35:2.25	25x25:2.25		
680	20x40:2.35	22x35:2.35	25x30:2.33	30x25:2.33			22x35:2.48	25x30:2.50	30x25:2.46	
820		22x40:2.68	25x30:2.65	30x25:2.64			22x40:2.86	25x35:2.75	30x25:2.69	
1000		22x45:3.02	25x35:3.00	30x30:2.96			22x50:3.10	25x40:3.06	30x30:3.10	
1200			25x40:3.43	30x30:3.41	35x30:3.40			25x45:3.63	30x35:3.55	35x30:3.49
1500			25x50:3.96	30x35:3.96	35x30:3.94				30x40:4.10	35x35:4.02
1800				30x40:4.31	35x35:4.28				30x45:4.55	35x35:4.54
2200				30x50:4.96	35x40:4.96					35x40:4.83
2700					35x45:5.57					35x50:5.30

Cap (μF) \ 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	20x25:1.19					20x25:1.23				
270	20x25:1.39	22x25:1.37				20x30:1.46	22x25:1.42			
330	20x30:1.56	22x25:1.51				20x35:1.64	22x30:1.59			
390	20x35:1.74	22x30:1.73	25x25:1.71			20x35:1.79	22x30:1.80	25x25:1.75		
470	20x35:2.03	22x30:1.97	25x25:1.95			20x40:2.12	22x35:2.06	25x30:2.08		
560	20x40:2.18	22x35:2.18	25x30:2.15	30x25:2.15			22x40:2.22	25x35:2.38	30x25:2.18	
680		22x40:2.48	25x30:2.48	30x25:2.48			22x45:2.62	25x35:2.56	30x30:2.52	
820		22x45:2.81	25x35:2.79	30x30:2.75				25x45:2.91	30x35:2.84	35x30:2.79
1000		22x50:3.28	25x40:3.28	30x35:3.15					30x35:3.36	35x30:3.29
1200			25x45:3.61	30x35:3.61	35x30:3.57				30x40:3.72	35x35:3.68
1500				30x45:4.13	35x35:4.06				30x50:4.18	35x40:4.10
1800				30x50:4.60	35x40:4.59					35x45:4.52
2200					35x45:5.25					

Cap (μF) \ 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						20x30:1.00				
180	20x25:1.20					20x35:1.13	22x30:1.29	25x25:1.38		
220	20x25:1.26	22x25:1.24				20x35:1.29	22x30:1.41	25x25:1.47		
270	20x30:1.42	22x25:1.50					22x35:1.68	25x30:1.70		
330	20x35:1.68	22x30:1.66	25x25:1.61				22x40:1.91	25x35:1.94	30x25:1.98	
390	20x40:1.92	22x35:1.88	25x30:1.88				22x45:2.07	25x40:2.11	30x30:2.15	
470		22x35:2.15	25x35:2.15	30x25:2.04				25x50:2.31	30x35:2.38	35x30:2.36
560		22x40:2.48	25x35:2.35	30x25:2.35					30x35:2.63	35x30:2.69
680			25x40:2.67	30x30:2.71					30x45:2.80	35x35:3.05
820			25x45:3.01	30x35:2.98	35x30:2.96				30x50:3.28	35x40:3.45
1000				30x40:3.56	35x35:3.48					35x45:3.57
1200				30x45:3.99	35x35:3.84					
1500					35x40:4.33					
1800					35x50:4.54					

Cap (μF) \ 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						20x25:0.68				
82						20x30:0.74	22x25:0.76			
100						20x30:0.86	22x30:0.89			
120	20x30:0.96	22x25:1.04				20x35:0.96	22x30:0.98	25x25:1.02		
150	20x30:1.10	22x30:1.20	25x25:1.22			20x35:1.10	22x35:1.12	25x30:1.14		
180	20x35:1.24	22x30:1.34	25x25:1.37			20x40:1.27	22x35:1.27	25x30:1.30	30x25:1.37	
220		22x35:1.47	25x30:1.53	30x25:1.54			22x40:1.42	25x35:1.48	30x30:1.49	
270		22x40:1.70	25x35:1.73	30x25:1.80			22x50:1.60	25x40:1.61	30x30:1.64	
330		22x45:1.87	25x35:1.97	30x30:2.03				25x45:1.80	30x35:1.85	35x30:1.87
390			25x40:2.14	30x35:2.23	35x30:2.30			25x50:2.04	30x40:2.05	35x35:2.07
470			25x50:2.55	30x35:2.53	35x30:2.55				30x45:2.26	35x35:2.26
560				30x40:2.73	35x35:2.75				30x50:2.57	35x40:2.59
680				30x50:3.15	35x40:3.15					35x45:2.80
820					35x45:3.47					
1000					35x50:3.60					

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



◆ STANDARD SIZE

Cap (μF) \ 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	20x25 : 0.75					20x25 : 0.70				
82	20x30 : 0.82	22x25 : 0.84				20x30 : 0.80	22x25 : 0.85			
100	20x30 : 0.95	22x30 : 0.99				20x35 : 0.90	22x30 : 0.97	25x25 : 0.98		
120	20x35 : 1.07	22x30 : 1.09	25x25 : 1.13			20x35 : 1.04	22x30 : 1.07	25x25 : 1.08		
150	20x40 : 1.22	22x35 : 1.24	25x30 : 1.27			20x40 : 1.17	22x35 : 1.21	25x30 : 1.26	30x25 : 1.30	
180		22x40 : 1.41	25x30 : 1.44	30x25 : 1.52			22x40 : 1.33	25x35 : 1.42	30x25 : 1.48	
220		22x45 : 1.58	25x35 : 1.64	30x30 : 1.66			22x45 : 1.55	25x35 : 1.58	30x30 : 1.65	
270			25x40 : 1.79	30x30 : 1.82				25x40 : 1.74	30x35 : 1.90	35x30 : 1.94
330			25x45 : 2.00	30x35 : 2.05	35x30 : 2.05			25x50 : 2.20	30x35 : 1.98	35x35 : 2.17
390				30x40 : 2.26	35x35 : 2.28				30x40 : 2.22	35x35 : 2.27
470				30x45 : 2.51	35x40 : 2.54				30x45 : 2.50	35x40 : 2.61
560				30x50 : 2.85	35x40 : 2.85					35x45 : 2.95
680					35x50 : 3.10					

Cap (μF) \ WV / φ D	450				
	φ 20	φ 22	φ 25	φ 30	φ 35
56	20x25 : 0.61				
68	20x30 : 0.70	22x25 : 0.71			
82	20x35 : 0.80	22x25 : 0.86			
100	20x35 : 0.88	22x30 : 0.95	25x25 : 0.97		
120	20x40 : 0.99	22x35 : 1.07	25x30 : 1.09	30x25 : 1.12	
150		22x40 : 1.18	25x30 : 1.25	30x25 : 1.29	
180		22x45 : 1.32	25x35 : 1.40	30x30 : 1.45	
220			25x40 : 1.59	30x30 : 1.64	35x30 : 1.66
270			25x45 : 1.73	30x35 : 1.89	35x30 : 1.90
330			25x50 : 2.12	30x40 : 2.12	35x35 : 2.15
390				30x45 : 2.35	35x40 : 2.38
470				30x50 : 2.65	35x45 : 2.68
560					35x50 : 2.88

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

