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)	See table below (20°C, 120Hz)	
Impedance Ratio(MAX)	See table below (120Hz)	
Endurance	After applying rated voltage with rated ripple current for 3000hrs at 85°C, the capacitors shall meet the following requirements.	

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)	10~250	315~400	420~450
Z(−25°C)/Z(20°C)	3	8	12
Z(−40°C)/Z(20°C)	12	—	—

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

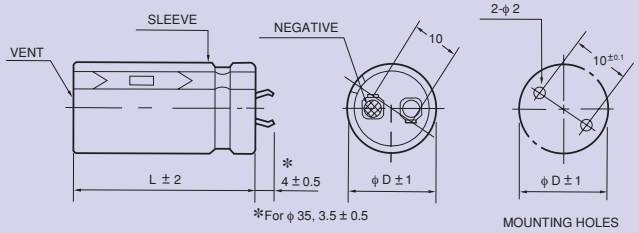
□□□	USC	□□□□□	□	□□□	SN	D×L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Terminal Code	Case Size

◆Option

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

◆DIMENSIONS (mm)

● SN [4(3.5)mm] terminal type



◆STANDARD SIZE

WV / Cap (μF) / φD	10										16									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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					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

WV / Cap (μF) / φD	25										35									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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										

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WV / Cap (μF) / φD	50										63									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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										

WV / Cap (μF) / φD	80										100									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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, 105°C)

Case Size φ D×L(mm)

◆STANDARD SIZE

WV / Cap (μF) / φD	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

WV / Cap (μF) / φD	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										

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WV / Cap (μF) / φD	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										

WV / Cap (μF) / φD	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

WV / Cap (μF) / φD	400										420									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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										

WV / Cap (μF) / φD	450									
	φ20		φ22		φ25		φ30		φ35	
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)

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