USC SERIES

85˚C Miniaturized, Snap-in Terminal Type

FEATURES

•Load Life : 85˚C 3000 hours.
•Smaller size with higher ripple current endurance than USR series.

♦SPECIFICATIONS

Items	Characteristics	
Operating Temperature Range	-40~+85˚C	-25~+85˚C
Rated Voltage Range	160~250V.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=Nominal Capacitance(μF)	
Dissipation Factor(MAX)	Rated Voltage (V): 160~400 / 420~450 tanδ: 0.15 / 0.25 (20˚C, 120Hz)	
Impedance Ratio(MAX)	Rated Voltage (V): 160~250 / 315~400 / 420~450 Z(-25˚C)/Z(20˚C): 3 / 8 / 12 Z(-40˚C)/Z(20˚C): 12 / / (120Hz)	
Load Life	After applying rated voltage with max. ripple current for 3000hrs at 85˚C, the capacitors shall meet the following requirements.	

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.

♦EXPLANATION OF PART NUMBER

□□□ Rated Voltage | USC Series | □□□□□ Nominal Capacitance | □ Capacitance Tolerance | □□ Terminal Code | □□□ Size Code

♦Terminal Code

	Code
Standard Terminal	Blank
Short Terminal	ST

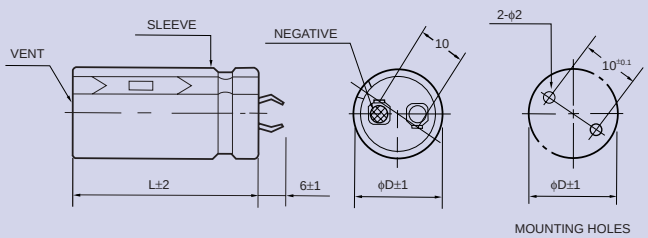
♦SIZE CODE

L \ φD	20	22	25	30	35
25	Z25	A25	B25	C25	D25
30	Z30	A30	B30	C30	D30
35	Z35	A35	B35	C35	D35
40	Z40	A40	B40	C40	D40
45	Z45	A45	B45	C45	D45
50	Z50	A50	B50	C50	D50

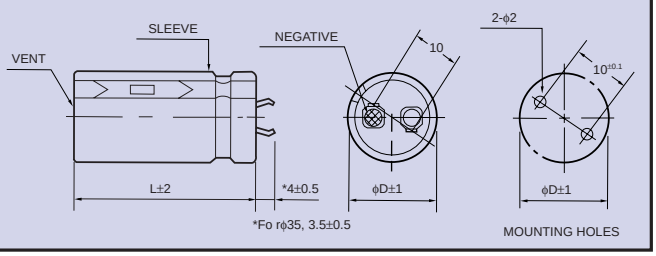
♦DIMENSIONS

(mm)

•Standard terminal type



•Short terminal type



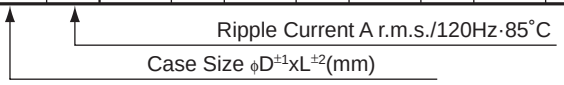
♦STANDARD SIZE, MAX. PERMISSIBLE RIPPLE CURRENT

WV / Cap (μF) / φD	160										180									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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

WV / Cap (μF) / φD	200										220									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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										

WV / Cap (μF) / φD	250										315									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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										

WV / Cap (μF) / φD	350										385									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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										



♦STANDARD SIZE, MAX. PERMISSIBLE RIPPLE CURRENT

Cap (μF) \ WV / φD	400										420									
	φ20		φ22		φ25		φ30		φ35		φ20		φ22		φ25		φ30		φ35	
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 / φD	450									
	φ20		φ22		φ25		φ30		φ35	
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 φD$^{\pm1}$xL$^{\pm2}$(mm)

♦MULTIPLIER FOR RIPPLE CURRENT

(1)Temperature coefficient

Ambient Temperature(˚C)	85	65≧
Coefficient	1.0	1.3

(2)Frequency coefficient

Frequency(Hz)		60(50)	120	500	1k	10k≦
Coefficient	160~250WV	0.80	1.00	1.20	1.30	1.50
	315~450WV	0.80	1.00	1.20	1.25	1.40