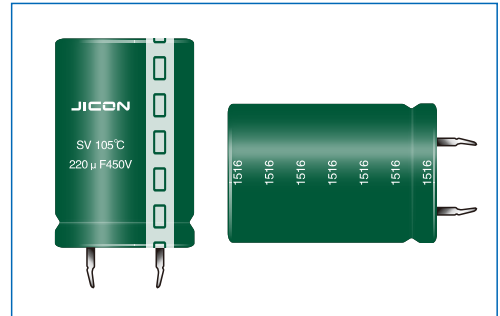


SV 系列 SERIES

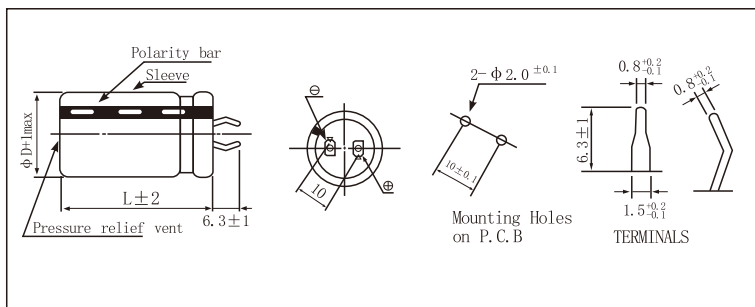
- Load life: 5000h 105°C
- High Professional Switch Mode Power Supplies
- High Ripple Current
- Frequency Converters



◆ SPECIFICATION

Items	Characteristics																																			
Operating Temperature Range(°C)	-40 ~ +105°C	-25 ~ +105°C																																		
Voltage range (V)	10~100	160~450																																		
Capacitance Range (µF)	68~56000 µF																																			
Capacitance Tolerance	±20% (at 20°C, 120Hz)																																			
Dissipation Factor(Tan δ)	<table border="1"> <tr> <td>U_R (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>160~250</td> <td>315~400</td> <td>450</td> </tr> <tr> <td>tg δ (MAX)</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>0.20</td> <td>0.25</td> </tr> </table>												U _R (V)	10	16	25	35	50	63	80	100	160~250	315~400	450	tg δ (MAX)	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.20	0.25
	U _R (V)	10	16	25	35	50	63	80	100	160~250	315~400	450																								
tg δ (MAX)	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.20	0.25																									
(at 20°C, 120Hz)																																				
Low Temperature Characteristics	<table border="1"> <tr> <td>U_R (V)</td> <td>10~100</td> <td>160~250</td> <td>315~450</td> </tr> <tr> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>3</td> <td>8</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>15</td> <td></td> <td></td> </tr> </table>				U _R (V)	10~100	160~250	315~450	Z-25°C/Z+20°C	4	3	8	Z-40°C/Z+20°C	15																						
	U _R (V)	10~100	160~250	315~450																																
	Z-25°C/Z+20°C	4	3	8																																
Z-40°C/Z+20°C	15																																			
(at 120Hz)																																				
leakage current (µA)	I=0.01C _R U _R or 1.5mA whichever is smaller. (at 20°C, After 5 minutes application of rated voltage) I=Leakage Current U _R =Rated Voltage C _R =Rated Capacitance																																			
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20 °C after subjected to DC voltage with the rated rippled current is applied for 5000 hours at 105°C																																			
	Capacitance change						Within ±20%initial value																													
	D. F. (Tan δ)						Not more than 200% of specified value																													
	leakage current						Not more than specified value																													
Shelf Life	After leaving capacitors under no load at 105° C for 1000 hours, they meet the characteristic requirements listed at right.																																			
	Capacitance change						Within ±20%initial value																													
	D. F. (Tan δ)						Not more than 200% of specified value																													
	leakage current						Not more than 200% of specified value																													

◆ DIMENSIONS(mm)



◆ Frequency Coefficient

Rated Voltage (V)	Frequency				
	50/60Hz	100Hz 120Hz	1KHz	10KHz	100KHz
10~100	0.90	1.00	1.05	1.10	1.15
160~250	0.80	1.00	1.20	1.30	1.50
315~450	0.80	1.00	1.20	1.25	1.40

◆ Temperature Coefficient

Temperature (°C)	+40	+55	+70	+85	+105
Coefficient	2.7	2.5	2.1	1.7	1.0



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size φD×L	
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)	
10V (13) 1A	8200	89	62	1.36	22×25	
	10000	73	51	1.65	22×30	
	12000	61	43	43	1.85	22×35
			43	43	1.82	25×25
	15000	49	34	34	2.12	22×40
			34	34	2.11	25×30
			34	34	2.14	30×25
	18000	41	28	28	2.40	22×45
			28	28	2.32	25×35
	22000	33	23	23	2.59	25×40
			23	23	2.73	30×30
	27000	27	19	19	3.01	25×45
			19	19	3.13	30×35
			19	19	3.05	35×30
	33000	22	16	16	3.43	25×50
			16	16	3.53	30×40
16			16	3.49	35×35	
39000	19	13	13	3.78	30×45	
		13	13	3.96	35×40	
47000	16	11	11	4.58	30×50	
		11	11	4.60	35×45	
56000	13	9	9	5.06	35×50	
16 (20) 1C	5600	119	83	1.44	22×25	
	6800	98	68	1.66	22×30	
	8200	81	57	1.67	25×25	
	10000	66	46	46	2.08	22×35
			46	46	2.07	25×30
	12000	55	39	39	2.36	22×40
			39	39	2.37	25×35
			39	39	2.33	30×25
	15000	44	31	31	2.69	22×45
			31	31	2.72	25×40
			31	31	2.54	30×30
	18000	37	26	26	3.06	25×45
			26	26	2.03	30×35
			26	26	3.09	35×30
	22000	30	21	21	3.39	25×50
			21	21	3.46	30×40
	27000	25	17	17	3.88	30×45
			17	17	3.85	35×35
33000	20	14	14	4.33	30×50	
		14	14	4.33	35×40	
39000	17	12	12	4.96	35×45	
47000	14	10	10	5.49	35×50	
25 (32) 1E	3900	153	107	1.31	22×25	
	4700	127	89	1.55	22×30	
	5600	107	75	75	1.77	22×35
			75	75	1.76	25×25



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size ΦD×L
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)
25 (32) 1E	6800	88	62	2.02	22×40
		88	62	1.88	25×30
	8200	73	51	2.27	22×45
		73	51	2.18	25×35
		73	51	1.19	30×25
	10000	60	42	2.56	22×50
		60	42	2.53	25×40
		60	42	2.38	30×30
	12000	50	35	2.79	25×45
		50	35	2.7	30×35
		50	35	2.76	35×30
	15000	40	28	3.13	30×40
18000	33	23	3.52	30×45	
	33	23	3.5	35×35	
22000	27	19	3.92	30×50	
	27	19	3.95	35×40	
27000	22	16	4.72	35×50	
35 (44) 1V	2700	197	138	1.29	22×25
	3300	161	113	1.54	22×30
	3900	136	95	1.77	22×35
		136	95	1.75	25×25
	4700	113	79	2.01	22×40
		113	79	1.97	25×30
	5600	95	66	2.25	22×45
		95	66	2.18	25×35
		95	66	2.08	30×25
	6800	78	55	2.49	22×50
		78	55	2.45	25×40
		78	55	2.28	30×30
	8200	65	45	2.8	25×45
		65	45	2.69	30×35
	1000	53	37	3.04	30×40
		53	37	2.78	35×30
12000	44	31	3.38	30×45	
	44	31	3.3	35×35	
15000	35	25	3.38	35×40	
18000	30	21	4.4	35×45	
50V (63) 1H	1500	310	217	1.21	22×25
	2200	211	148	1.52	22×30
		211	148	1.46	25×25
	2700	172	120	1.77	22×35
		172	120	1.76	25×30
	3300	141	99	1.92	22×40
		141	99	1.92	30×25
	3900	119	83	2.27	22×45
		119	83	2.20	25×35
119		83	2.19	30×30	



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size φD×L
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)
50V (63) 1H	4700	99	69	2.43	25×40
	5600	83	58	2.72	25×45
		83	58	2.58	30×35
	6800	83	58	2.35	35×30
		68	48	3.01	30×40
	8200	68	48	2.91	35×35
		57	40	3.63	30×50
	10000	57	40	3.36	35×40
12000	46	33	3.79	35×45	
63 (79) 1J	1000	398	279	1.10	22×25
	1500	265	186	1.41	22×30
		265	186	1.38	25×25
	1800	221	155	1.62	22×35
		221	155	1.63	25×30
	2200	181	127	1.85	22×40
		181	127	1.80	30×25
	2700	147	103	2.10	22×45
		147	103	2.03	25×35
		147	103	2.01	30×30
	3300	121	84	2.33	25×40
	3900	102	72	2.58	25×45
		102	72	2.46	30×35
		102	72	2.31	35×30
	4700	85	59	2.82	30×40
		85	59	2.77	35×35
5600	71	50	3.22	30×45	
	71	50	3.20	35×40	
6800	59	41	3.61	35×45	
8200	49	34	3.94	35×50	
80 (100) 1K	820	405	283	1.09	22×25
	1000	332	232	1.29	22×30
	1200	277	194	1.48	22×35
		277	194	1.38	25×25
	1500	221	155	1.70	22×40
		221	155	1.74	25×30
		221	155	1.75	30×25
	1800	184	129	1.91	22×45
		184	129	1.86	25×35
	2200	151	106	2.22	25×45
		151	106	2.02	30×30
	2700	123	86	2.38	30×35
		123	86	2.45	35×30
	3300	101	70	2.69	30×40
		101	70	2.60	35×35
	3900	85	60	2.94	30×45
85		60	3.00	35×40	
4700	71	49	3.44	35×45	
5600	59	42	3.72	35×50	
100 (125) 2A	560	474	332	1.01	22×25
	680	390	273	1.19	22×30
	820	324	227	1.33	22×35
		324	227	1.26	25×25



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size φD×L
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)
100 (125) 2A	100	265	186	1.56	22×40
		265	186	1.52	25×30
		265	186	1.47	30×25
	1200	221	155	1.76	22×45
			155	1.76	25×35
		221	155	1.76	30×30
	1500	177	124	2	22×50
			124	2.03	25×40
	1800	147	103	2.29	25×45
			103	2.19	30×35
		147	103	2.15	35×30
	2200	121	84	2.52	30×40
			84	2.48	35×35
	2700	98	69	2.86	30×45
69			2.87	35×40	
3300	80	56	3.25	35×45	
3900	68	56	3.56	35×50	
160V (200) 2C	220	905	633	0.63	22×25
	270	737	516	0.76	22×30
	330	603	422	0.90	22×35
		603	422	0.84	25×25
	390	510	357	0.97	25×30
		510	357	1.00	30×25
	470	424	296	1.11	22×40
		424	296	1.14	25×35
		424	296	1.17	30×30
	560	355	249	1.26	22×45
	680	293	205	1.44	22×50
			205	1.43	25×40
		293	205	1.50	30×35
	820	243	170	1.63	25×45
			170	1.66	30×40
		243	170	1.63	35×30
	1000	199	139	1.89	30×45
			139	1.89	35×35
	1200	166	116	2.16	30×50
116			2.23	35×40	
1500	133	93	2.61	35×45	
1800	111	77	2.97	35×50	
220 (250) 2D	220	905	633	0.63	22×25
	270	737	516	0.76	22×30
		737	516	0.76	25×25
	330	603	422	0.90	22×35
		603	422	0.90	25×30
	390	510	357	1.03	22×40
		510	357	1.06	25×35
		510	357	1.02	30×25
	470	424	296	1.17	22×45
		424	296	1.17	30×30
	560	355	249	1.32	22×50
			249	1.32	25×40
		355	249	1.33	30×35



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size φD×L	
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)	
220 (250) 2D	680	293	205	1.51	25×45	
		293	205	1.49	35×30	
	820	243	170	1.71	25×50	
		243	170	1.74	30×40	
		243	170	1.75	35×35	
	1000	199	139	2.01	30×45	
		199	139	2.07	35×40	
	1200	166	116	2.25	30×50	
		166	116	2.23	35×45	
		133	93	2.76	35×50	
	250 (300) 2E	150	1327	929	0.52	22×25
		180	1106	774	0.64	22×30
1106			774	0.62	25×25	
220		905	633	0.76	22×35	
		905	633	0.76	25×30	
270		737	516	0.88	22×40	
		737	516	0.90	25×35	
		737	516	0.85	30×25	
330		603	422	1.01	22×45	
		603	422	1.00	30×30	
390		510	357	1.13	22×50	
		510	357	1.13	25×40	
		510	357	1.15	30×35	
470		424	296	1.29	25×45	
		424	296	1.24	35×30	
560		355	249	1.45	25×50	
		355	249	1.48	30×40	
		355	249	1.49	35×35	
680		293	205	1.71	30×45	
		293	205	1.74	35×40	
820		243	170	1.94	30×50	
1000	199	139	2.2	35×45		
315 (365) 2F	68	3903	2732	0.32	22×25	
	82	3237	2266	0.38	22×30	
	100	2654	1858	0.41	25×25	
	120	2212	1548	0.48	22×35	
		2212	1548	0.49	25×30	
	150	1769	1239	0.56	22×40	
		1769	1239	0.51	30×25	
	180	1474	1032	0.63	22×45	
		1474	1032	0.62	25×35	
		1474	1032	0.63	30×30	
	220	1206	844	0.72	22×50	
		1206	844	0.71	25×40	
		1206	844	0.74	30×35	
	270	983	688	0.81	25×45	
		983	688	0.85	30×40	
		983	688	0.82	35×30	
	330	804	563	0.92	25×50	
		804	563	0.9	35×35	



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size ΦD×L
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)
315 (365) 2F	330	804	563	0.92	25×50
		804	563	0.9	35×35
	390	681	476	1.04	30×45
		681	476	1.05	35×40
	470	565	395	1.15	30×50
560	474	332	1.18	35×45	
350V (400) 2V	68	3903	2732	0.34	22×25
	82	3237	2266	0.40	22×30
	100	2654	1858	0.47	25×25
		2212	1548	0.52	22×35
		2212	1548	0.53	25×30
	120	2212	1548	0.53	30×25
		1769	1239	0.59	22×40
	150	1769	1239	0.60	25×35
		1474	1032	0.68	22×45
	180	1474	1032	0.70	25×40
		1474	1032	0.71	30×30
		1206	844	0.78	22×50
	220	1206	844	0.82	25×45
		1206	844	0.82	30×35
		983	688	0.94	25×50
	270	983	688	0.93	30×40
		983	688	0.90	35×30
		804	563	1.05	30×45
	330	804	563	1.01	35×35
		681	476	1.18	30×50
390	681	476	1.13	35×40	
	565	395	1.26	35×45	
560	474	332	1.39	35×50	
400 (450) 2G	68	3903	2732	0.38	22×30
	82	3237	2266	0.41	25×25
	100	2654	1858	0.46	22×35
		2654	1858	0.48	25×30
		2654	1858	0.48	30×25
	120	2212	1548	0.53	22×40
		2212	1548	0.55	25×35
	150	2212	1548	0.56	30×30
		1769	1239	0.63	22×50
	180	1769	1239	0.65	25×40
		1474	1032	0.72	25×45
	220	1474	1032	0.74	30×35
		1206	844	0.79	25×50
		1206	844	0.85	30×40
	270	1206	844	0.89	35×30
		983	688	0.98	30×45
	330	983	688	0.96	35×35
		804	563	1.12	30×50
	390	804	563	1.12	35×40
		681	476	1.27	35×45
470	565	395	1.33	35×50	



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size φD×L
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)
450 (500) 2W	68	3903	2732	0.38	22×30
	82	3237	2266	0.44	22×35
		3237	2266	0.45	25×30
		3237	2266	0.46	30×25
	100	2654	1858	0.50	22×40
		2654	1858	0.52	25×35
	120	2212	1548	0.58	22×50
		2212	1548	0.58	25×40
	150	1769	1239	0.66	25×45
		1769	1239	0.68	30×35
	180	1474	1032	0.74	25×50
		1474	1032	0.77	30×40
		1474	1032	0.77	35×30
	220	1206	844	0.88	30×45
		1206	844	0.88	35×35
	270	983	688	0.99	30×50
		983	688	1.01	35×40
	330	804	563	1.15	35×45
390	681	476	1.28	35×50	

Customer products are available on request