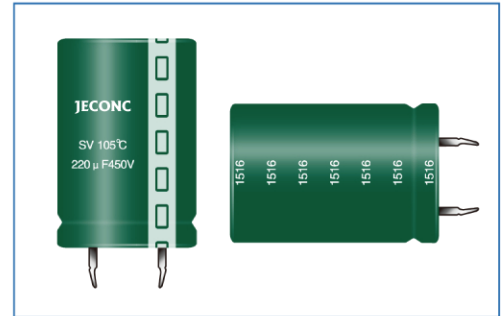


SV 系列 SERIES

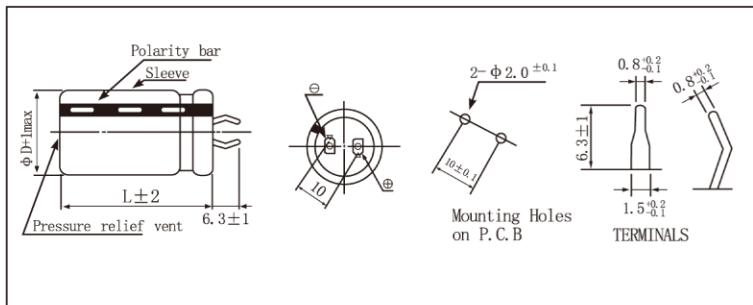
- Load life: 5000h 105°C
- High Professional Switch Mode Power Supplies
- High Ripple Current
- Frequency Converters



◆ SPECIFICATION

Items	Characteristics											
Operating Temperature Range(℃)	-40 ~ +105℃								-25 ~ +105℃			
Voltage range (V)	10~100								160~450			
Capacitance Range (μF)	68~56000 μF											
Capacitance Tolerance	±20% (at 20℃, 120Hz)											
Dissipation Factor(Tan δ)	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℃, 120Hz)												
Low Temperature Characteristics	U _R (V)		10~100		160~250		315~450					
	Z-25℃/Z+20℃		4		3		8					
	Z-40℃/Z+20℃		15									
(at 120Hz)												
leakage current (μA)	I=0.01C _R U _R or 1.5mA whichever is smaller. (at20℃,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℃ after subjected to DC voltage with the rated rippled current is applied for 5000 hours at 105℃											
	Capacitance change				Within ±20%initial value							
	D. F. (Tan δ)				Not more than200% 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

Frequency Rated Voltage (V)	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	1.85	22×35
		61	43	1.82	25×25
	15000	49	34	2.12	22×40
		49	34	2.11	25×30
		49	34	2.14	30×25
	18000	41	28	2.40	22×45
		41	28	2.32	25×35
	22000	33	23	2.59	25×40
		33	23	2.73	30×30
	27000	27	19	3.01	25×45
		27	19	3.13	30×35
		27	19	3.05	35×30
	33000	22	16	3.43	25×50
		22	16	3.53	30×40
		22	16	3.49	35×35
	39000	19	13	3.78	30×45
		19	13	3.96	35×40
	47000	16	11	4.58	30×50
		16	11	4.60	35×45
16 (20) 1C	56000	13	9	5.06	35×50
	5600	119	83	1.44	22×25
	6800	98	68	1.66	22×30
	8200	81	57	1.67	25×25
	10000	66	46	2.08	22×35
		66	46	2.07	25×30
	12000	55	39	2.36	22×40
		55	39	2.37	25×35
		55	39	2.33	30×25
	15000	44	31	2.69	22×45
		44	31	2.72	25×40
		44	31	2.54	30×30
	18000	37	26	3.06	25×45
		37	26	2.03	30×35
		37	26	3.09	35×30
	22000	30	21	3.39	25×50
		30	21	3.46	30×40
	27000	25	17	3.88	30×45
		25	17	3.85	35×35
	33000	20	14	4.33	30×50
		20	14	4.33	35×40
	39000	17	12	4.96	35×45
	47000	14	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	1.77	22×35
		107	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
63 (79) 1J	10000	46	33	3.79	35×45
	12000	39	27	4.06	35×50
	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
80 (100) 1K	5600	71	50	3.22	30×45
	6800	71	50	3.20	35×40
		59	41	3.61	35×45
	8200	49	34	3.94	35×50
	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
100 (125) 2A	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
	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
		221	155	1.76	25×35
		221	155	1.76	30×30
	1500	177	124	2	22×50
		177	124	2.03	25×40
	1800	147	103	2.29	25×45
		147	103	2.19	30×35
		147	103	2.15	35×30
	2200	121	84	2.52	30×40
		121	84	2.48	35×35
	2700	98	69	2.86	30×45
		98	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
		293	205	1.43	25×40
		293	205	1.50	30×35
	820	243	170	1.63	25×45
		243	170	1.66	30×40
		243	170	1.63	35×30
	1000	199	139	1.89	30×45
		199	139	1.89	35×35
	1200	166	116	2.16	30×50
		166	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
		355	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℃, 120Hz	Typ ESR 20℃, 120Hz	Rated Ripple Current 85℃ 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
		565	395	1.18	35×45
350V (400) 2V	560	474	332	1.34	35×50
	68	3903	2732	0.34	22×25
	82	3237	2266	0.40	22×30
	100	2654	1858	0.47	25×25
	120	2212	1548	0.52	22×35
		2212	1548	0.53	25×30
		2212	1548	0.53	30×25
	150	1769	1239	0.59	22×40
		1769	1239	0.60	25×35
	180	1474	1032	0.68	22×45
		1474	1032	0.70	25×40
		1474	1032	0.71	30×30
	220	1206	844	0.78	22×50
		1206	844	0.82	25×45
		1206	844	0.82	30×35
	270	983	688	0.94	25×50
		983	688	0.93	30×40
		983	688	0.90	35×30
	330	804	563	1.05	30×45
		804	563	1.01	35×35
	390	681	476	1.18	30×50
		681	476	1.13	35×40
	470	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
		2212	1548	0.56	30×30
	150	1769	1239	0.63	22×50
		1769	1239	0.65	25×40
	180	1474	1032	0.72	25×45
		1474	1032	0.74	30×35
	220	1206	844	0.79	25×50
		1206	844	0.85	30×40
		1206	844	0.89	35×30
	270	983	688	0.98	30×45
		983	688	0.96	35×35
	330	804	563	1.12	30×50
		804	563	1.12	35×40
	390	681	476	1.27	35×45
	470	565	395	1.33	35×50



◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20℃, 120Hz	Typ ESR 20℃, 120Hz	Rated Ripple Current 85℃ 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
		2212	1548	0.58	30×30
	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