

SJ

Low impedance · High Ripple Series

- Endurance: 105°C, 1000~5000 hours
- Recommended Applications : Applying to AV(TV, video, audio), monitor /computer, OA/HA /communication, transducer/inverter, adapter, switching power supply
- Corresponding product to RoHS

SJ
↑
SC

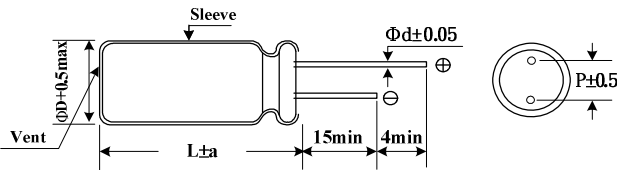
Low impedance



SPECIFICATIONS

Item	Characteristics																					
Category Temperature Range	-40 ~ +105°C																					
Rated Voltage Range	6.3 ~ 100VDC																					
Rated Capacitance Range	5.6 ~ 6800 µF																					
Capacitance Tolerance	± 20 % (120Hz , 20°C)																					
Leakage Current (20°C)	I ≤ 0.01CV or 3 µA ,whichever is greater. (After rated voltage applied for 2 minutes) I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V)																					
Dissipation Factor(MAX) (tan δ) (120Hz , 20°C)	WV	6.3 10 16 25 35 50 63 100																				
	tan δ	0.22 0.19 0.16 0.14 0.12 0.10 0.09 0.08																				
When nominal capacitance is over 1000 µF, tan δ shall be added 0.02 to the listed value with increase of every 1000 µF.																						
Low Temperature Stability Impedance Ratio (MAX)	WV	6.3 10 16 25 35 50 63 100																				
	Z(120Hz)																					
	Z(-25°C) / Z(20°C)	4 3 2 2 2 2 2 2																				
	Z(-40°C) / Z(20°C)	8 6 4 3 3 3 3 3																				
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the specified period of time at 105°C.																					
	Capacitance change	Within ± 25% of initial value																				
	D.F. (tan δ)	Not more than 200% of specified value																				
	Leakage current	Not more than the specified value																				
		<table border="1"> <thead> <tr> <th rowspan="2">Case size (Φ)</th> <th colspan="2">Life time (hours)</th> </tr> <tr> <th>L=7</th> <th></th> </tr> </thead> <tbody> <tr> <td>ΦD ≤ 6.3</td> <td>1000</td> <td></td> </tr> <tr> <td>ΦD = 8</td> <td>2000</td> <td></td> </tr> <tr> <td>ΦD = 10</td> <td>3000</td> <td></td> </tr> <tr> <td>ΦD = 13</td> <td>4000</td> <td></td> </tr> <tr> <td>ΦD ≥ 13</td> <td>5000</td> <td></td> </tr> </tbody> </table>	Case size (Φ)	Life time (hours)		L=7		ΦD ≤ 6.3	1000		ΦD = 8	2000		ΦD = 10	3000		ΦD = 13	4000		ΦD ≥ 13	5000	
Case size (Φ)	Life time (hours)																					
	L=7																					
ΦD ≤ 6.3	1000																					
ΦD = 8	2000																					
ΦD = 10	3000																					
ΦD = 13	4000																					
ΦD ≥ 13	5000																					
*If dimension is down size, Endurance will be less 1000hrs than standard.																						
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours (L=7mm is 500Hours) at 105°C without voltage applied.																					

Dimensions [mm]



ΦD	4	5	6.3	8	10	13	16	18
P	1.5	2	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.45	0.5 (0.45)	0.5 (0.45)	0.6 (0.5)	0.6	0.6	0.8	0.8
a	1.0	1.5 (1.0)	1.5 (1.0)	1.5 (1.0)	1.5	2.0	2.0	2.0

() : L = 7

Multiplier for Ripple Current

Freq. (Hz)	50	120	1K	10K	100K
5.6 ~ 390 µF	0.60	0.70	0.85	0.95	1.00
470 ~ 1000 µF	0.65	0.75	0.90	0.98	1.00
1200 ~ 6800 µF	0.75	0.80	0.95	1.00	1.00

■ STANDARD RATINGS

Rated Voltage (Surge Voltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω ,20°C) (100KHz)	Rated Voltage (Surge Voltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω ,20°C) (100KHz)
6.3V (8)	39	4x7	130	0.85	16V (20)	18	4x7	130	0.92
	47	5x7	175	0.7		27	5x7	190	0.61
	56	5x7	190	0.56		33	5x7	210	0.45
	68	5x7	210	0.43		39	5x11	220	0.43
	100	5x11	200	0.43		47	5x11	230	0.36
		6.3x7	240	0.35		56	5x11	250	0.3
	120	5x11	220	0.38		68	6.3x7	300	0.24
		6.3x7	270	0.29		100	6.3x11	370	0.16
	150	5x11	250	0.3			8x7	350	0.18
		6.3x7	300	0.23		120	6.3x11	410	0.13
	180	8x7	340	0.18			8x7	380	0.15
	220	8x7	380	0.15		150	8x11	510	0.12
	270	6.3x11	370	0.16		180	8x11	560	0.11
	330	6.3x11	410	0.13		220	8x11	620	0.1
	470	8x11	680	0.086		270	8x11	690	0.088
	560	8x11	760	0.072		330	8x11	760	0.072
	680	8x15	900	0.062		470	8x15	1000	0.056
	820	8x15	1000	0.056			10x12.5	1030	0.053
	1000	10x12.5	1030	0.053		560	8x20	1140	0.049
	1200	8x20	1250	0.041			10x16	1300	0.046
		10x16	1430	0.038		680	8x20	1250	0.041
	1500	10x20	1820	0.026			10x16	1430	0.038
	1800	10x25	1940	0.025		820	10x20	1650	0.032
2200	10x25	2150	0.023	1000	10x20	1820	0.026		
2700	13x20	2230	0.022	1200	10x25	2150	0.023		
3300	13x20	2360	0.021	1500	13x20	2360	0.021		
3900	13x25	2770	0.018	1800	13x25	2510	0.02		
4700	13x30	3290	0.016	2200	13x25	2770	0.018		
5600	13x35	3400	0.015	2700	13x30	3290	0.016		
	16x20	3140	0.018		16x20	3140	0.018		
6800	16x25	3460	0.016	3300	13x35	3400	0.015		
10V (13)	27	4x7	130	0.89	25V (32)	15	4x7	130	0.94
	33	5x7	160	0.75		18	5x7	170	0.69
	39	5x7	175	0.64		27	5x7	210	0.46
	47	5x7	190	0.53		33	5x11	220	0.42
	56	5x7	210	0.44		39	5x11	230	0.36
	68	5x11	210	0.44		47	5x11	250	0.3
	100	5x11	250	0.3		56	6.3x7	300	0.24
	120	6.3x7	300	0.23		68	6.3x11	340	0.19
	150	8x7	350	0.18			8x7	310	0.22
	180	8x7	380	0.15		100	6.3x11	410	0.13
	220	6.3x11	410	0.13			8x7	380	0.15
	270	8x11	580	0.12		120	8x11	560	0.12
	330	8x11	640	0.1		150	8x11	630	0.105
	470	8x11	760	0.072		180	8x11	690	0.088
	560	8x15	910	0.068		220	8x11	760	0.072
		10x12.5	940	0.064		270	8x15	900	0.068
	680	10x12.5	1030	0.053			10x12.5	930	0.065
	820	8x20	1130	0.05		330	10x12.5	1030	0.053
		10x16	1300	0.046		470	8x20	1250	0.041
	1000	8x20	1250	0.041			10x16	1430	0.038
		10x16	1430	0.038		560	10x20	1650	0.032
	1200	10x20	1820	0.026		680	10x20	1820	0.026
	1500	10x25	2150	0.023		820	10x25	2150	0.023
1800	13x20	2230	0.022	1000	13x20	2360	0.021		
2200	13x20	2360	0.021	1200	13x25	2510	0.02		
2700	13x25	2510	0.02	1500	13x25	2770	0.018		
3300	13x25	2770	0.018	1800	13x30	3290	0.016		
3900	13x30	3290	0.016		16x20	3140	0.018		
	16x20	3140	0.018	2200	13x35	3400	0.015		
4700	13x35	3400	0.015	2700	16x25	3460	0.016		
5600	16x25	3460	0.016						

■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω ,20°C) (100KHz)	Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance (Ω ,20°C) (100KHz)
35V (44)	10	4x7	130	0.96	63V (79)	39	8x11	308	0.42
	15	5x7	190	0.57		47	8x11	336	0.35
	18	5x7	210	0.47		56	8x11	400	0.35
	27	5x11	230	0.37		68	8x15	488	0.26
	33	5x11	250	0.30			10x12.5	500	0.24
	39	6.3x7	300	0.25		82	8x15	536	0.22
	47	6.3x11	380	0.15			10x12.5	552	0.20
		8x7	350	0.19		100	10x16	640	0.16
	56	6.3x11	410	0.13		120	8x20	656	0.16
		8x7	380	0.16			10x16	760	0.15
	68	8x11	510	0.12		150	10x20	808	0.13
	100	8x11	620	0.105			13x16	832	0.13
	120	8x11	680	0.088		180	10x20	880	0.11
	150	8x11	760	0.072			13x16	912	0.11
	180	8x15	910	0.068		220	10x25	1040	0.099
		10x12.5	930	0.065		270	13x20	1200	0.081
	220	10x12.5	1030	0.053		330	13x25	1480	0.058
	270	8x20	1250	0.041		390	13x30	1640	0.063
	330	10x16	1430	0.038			16x20	1448	0.073
	470	10x20	1820	0.026		470	13x30	1800	0.061
560	10x25	2150	0.023	16x20	1592		0.061		
680	13x20	2360	0.023	560	13x35	1960	0.047		
820	13x25	2510	0.02		16x25	2040	0.043		
1000	13x25	2770	0.018	680	13x40	2224	0.039		
1200	13x30	3290	0.016		18x20	1960	0.051		
	16x20	3140	0.018	820	16x32	2248	0.035		
1500	13x35	3400	0.015		18x25	2224	0.042		
1800	16x25	3460	0.016	1000	16x36	2272	0.028		
50V (63)	5.6	4x7	130		1	18x32	2616	0.034	
	6.8	5x7	170	0.74	1200	16x40	2672	0.026	
	10	5x7	210	0.5		18x36	2648	0.027	
	15	6.3x7	220	0.38	1500	18x40	2736	0.024	
		5x11	215	0.48		10	6.3x11	170	0.95
	22	6.3x7	300	0.26	15	6.3x 11	210	0.57	
		5x11	240	0.34	22	8x11	330	0.44	
	27	8x7	340	0.21	27	8x11	360	0.36	
	33	8x7	380	0.17	33	8x15	375	0.3	
	39	6.3x11	330	0.16	39	8x15	450	0.25	
	47	6.3x11	360	0.15	47	10x12.5	450	0.24	
	56	6.3x11	390	0.14	56	8x20	570	0.19	
	68	8x11	600	0.11	68	10x16	580	0.18	
	82	8x11	660	0.09	82	10x20	750	0.13	
	100	8x11	730	0.074		13x16	740	0.13	
	120	8x15	950	0.065	100	10x25	880	0.12	
	150	10x12.5	980	0.061	120	13x20	1050	0.094	
	180	8x20	1190	0.046	150	13x25	1100	0.085	
	220	10x16	1370	0.042	180	13x25	1200	0.071	
	270	10x20	1580	0.03	220	13x30	1410	0.063	
330	10x25	1870	0.028	16x20		1300	0.071		
390	13x20	1870	0.028	270	13x35	1560	0.052		
470	13x20	2050	0.027		16x25	1600	0.053		
560	13x25	2410	0.023	330	18x20	1470	0.069		
680	13x30	2860	0.021		13x40	1700	0.046		
820	13x35	2960	0.019	390	16x32	1750	0.041		
	16x20	2730	0.023		18x25	1620	0.049		
1000	16x32	3350	0.021	470	16x36	1890	0.033		
63V (79)	15	5x11	136		1.19	18x32	1780	0.039	
	22	6.3x11	176	0.88	560	16x40	2080	0.03	
	27	6.3x11	192	0.58		18x36	2060	0.031	
	33	6.3x11	216	0.47	680	18x40	2570	0.028	