

## RS Series Long life, Low impedance 115 °C

### Features:

- Long life 10000~12000hrs@115°C
- Safety vent construction design
- RoHS Compliance

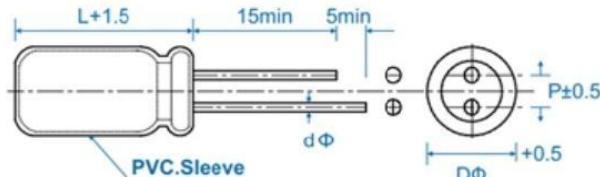
### Specification:

Item	Performance Characteristics								
Operating Temperature Range	-40°C ~ +115°C						-20°C ~ +115°C		
Rated Working Voltage Range	10 to 50VDC						160 to 450 VDC		
Nominal Capacitance Range	6.3 to 3300 uF						6.3 to 3300 uF		
Capacitance Tolerance	$\pm 20\% (120\text{Hz}, +20^\circ\text{C})$								
Leakage Current (+20°C,max)	1≤0.01CV3(μA) After 1 minute whichever is greater measured with rated working voltage applied.						1≤0.03 CV(μA) After 1 minute with rated working voltage applied.		
Dissipation Factor Tan5,at 20°C,120Hz)	Working Voltage (VDC)	6.3	10	16	25	35	50	63	100
	D.F. (%) Max.	22	19	16	14	12	10	9	8
	For capacitance >1000 OF, add 2% per another 1000 μF								
Low Temperature Characteristics(120Hz)	Working Voltage (VDC)	6.3	10	16	25	35	50	63	100
	Z-25°C /Z+20°C	2	2	2	2	2	2	2	2
	Z-40°C /Z+20°C	3	3	3	3	3	3	3	3
	For capacitance > 1000 μF, add 0.5 per another 1000μF for -25°C/+20°C add 1 per another 1000μF for -45°C/+20°C								
Load Life	Test Condition Duration time: 10000~12000Hrs Ambient temperature:+115°C Applied voltage:Rated DC working voltage After test requirement at +20°C Capacitance change:≤±20% of the initial measured value Dissipation factor:≤200% of the initial specified value Leakage Current:≤the initial specified value						Dφ	Lifetime(hrs)	
							φD≤8	10000	
							φD≥10	120000	
Shelf Life	Test Conditions Duration time:1000Hrs Ambient temperature:+115°C Applied voltage:None After test requirement at +20°C:Same limits as load life Pre-treatment for measurement shall be conducted after application of DC working voltage for 30 minutes.								

### Multiplier For Ripple Current vs. Frequency

CAP(uF)/Hz	50(60)	120	400	1K	10K	50K~100
CAP≤10	0.8	1	1.3	1.45		1.7
10<CAP≤100	0.8	1	1.23	1.36	1.48	1.53
100<CAP≤1000	0.8	1	1.16	1.25	1.35	1.38
1000<CAP	0.8	1	1.11	1.17	1.25	1.28

### Dimension:(unit:mm)



Dφ	5	6.3	8	10	13	16	18	22	D=18	D>18
P	2	2.5	3.5	5	5	7.5	7.5	10	L<35.5	L≥35.5
Dφ	0.5		L<20	LI≥20	0.6		0.8		1.5	1.5
			0.5	0.6					2	2

**Case Size**

WV Cap(uF)	6.3					10					φDL(mm)	
	Size	Ripple	Impedance		Size	Ripple	Impedance		20°C	-10°C		
			20°C	-10°C			20°C	-10°C				
150					5×11	295	0.23	0.82				
220	5×11	315	0.23	0.82								
330					6.3×11	490	0.09	0.37				
470	6.3×11	486	0.1	0.37								
680					8×11.5	895	0.08	0.21				
820	8×11.5	855	0.06	0.21								
1000					8×16	1200	0.05	0.17				
					10×12.5	1280	0.049	0.16				
1200	8×16	1125	0.05	0.17								
	10×12.5	1190	0.044	0.155								
1500	8×20	1358	0.034	0.13	8×20	1450	0.034	0.13				
					10×16	1750	0.033	0.12				
1800	10×16	1580	0.033	0.12	10×20	1910	0.025	0.08				
2200	10×20	1760	0.025	0.08	10×25	2200	0.023	0.069				
2700	10×25	2025	0.023	0.069	13×20	2430	0.022	0.055				
3900	13×20	2230	0.022	0.055	13×25	2850	0.02	0.053				
4700	13×25	2610	0.02	0.053	13×30	3450	0.018	0.048				
					16×21	3200	0.02	0.053				
5600	13×30	3150	0.018	0.048	13×35	3520	0.017	0.046				
6800	16×21	2925	0.02	0.053	16×25	3580	0.018	0.05				
	13×35	3210	0.017	0.046								
8200	16×25	3260	0.018	0.05								

WV Cap(uF)	16					25					φDL(mm)	
	Size	Ripple	Impedance		Size	Ripple	Impedance		20°C	-10°C		
			20°C	-10°C			20°C	-10°C				
68					5×11	310	0.240	0.880				
100	5×11	315	0.23	0.84								
150					6.3×11	490	0.100	0.370				
220	6.3×11	486	0.090	0.37								
330					8×11.5	850	0.06	0.210				
390					8×16	1125	0.050	0.170				
470	8×11.5	850	0.06	0.21	10×12.5	1190	0.044	0.160				
560					8×20	1350	0.034	0.130				
680	8×16	1125	0.05	0.17	10×16	1580	0.033	0.120				
	10×12.5	1190	0.044	0.16								
820					10×20	1760	0.025	0.075				
1000	8×20	1350	0.034	0.13	10×25	2025	0.023	0.069				
	10×16	1580	0.033	0.12								
1500	10×20	1760	0.025	0.075	13×20	2230	0.022	0.055				
1800	10×25	2025	0.023	0.069	13×25	2610	0.020	0.053				
2200	13×20	2230	0.022	0.055	13×30	3150	0.018	0.048				
					16×21	2920	0.020	0.053				
2700	13×25	2610	0.02	0.053	13×35	3210	0.017	0.046				
3300	13×30	3150	0.018	0.048	16×25	3260	0.018	0.050				
	16×21	2920	0.023	0.053								
3900	13×35	3210	0.017	0.046								
4700	16×25	3260	0.018	0.05								

WV Cap(uF)	35				50			
	Size	Ripple	Impedance		Size	Ripple	Impedance	
			20°C	-10°C			20°C	-10°C
27					5x11	214	0.400	1.300
47	5x11	310	0.5	1.55				
56					6.3x11	346	0.150	0.550
100	6.3x11	486	0.11	0.39				
120					8x16	855	0.065	0.195
150					10x12.5	880	0.067	0.198
180					8x20	1070	0.051	0.154
220	8x11.5	850	0.062	0.21	10x16	1230	0.046	0.132
270	8x16	1125	0.060	0.165	10x20	1420	0.033	0.130
330	10x12.5	1190	0.043	0.154	10x25	1680	0.032	0.122
39D	8x20	1350	0.032	0.122				
470	10x16	1580	0.033	0.130	13x20	1845	0.032	0.122
560	10x20	1760	0.030	0.075	13x25	2160	0.028	0.069
680	10x25	2025	0.028	0.069	13x30	2570	0.026	0.067
820					13x35	2660	0.024	0.066
					16x21	2450	0.028	0.069
1000	13x20	2230	0.022	0.055	16x25	2700	0.026	0.067
1200	13x25	2610	0.018	0.053				
1500	13x30	3150	0.018	0.048				
	16x21	2920	0.023	0.053				
1800	13x35	3210	0.017	0.046				
2200	16x25	3260	0.018	0.05				

WV Cap(uF)	63				80			
	Size	Ripple	Impedance		Size	Ripple	Impedance	
			20°C	-10°C			20°C	-10°C
12					5x11	146	1.54	6.16
18	5x11	155	0.98	3.85				
33					6.3x11	240	0.63	2.54
47	6.3x11	250	0.60	1.54				
56					8x11.5	415	0.4	1.54
68					8x16	526	0.28	1.10
82	8x11.5	472	0.30	0.97	10x12.5	560	0.25	1.06
100	8x16	619	0.20	0.7	8x20	660	0.21	0.84
120	10x12.5	652	0.17	0.66	10x16	700	0.187	0.792
150	8x20	774	0.14	0.57				
180	10x16	898	0.13	0.53	10x20	990	0.13	0.53
					13x16	877	0.14	0.57
220					10x25	1050	0.12	0.52
270	10x20	1080	0.086	0.34	13x20	1280	0.094	0.342
	13x16	1080	0.090	0.3				
	13x20	1200	0.088	0.3				
330	10x25	1260	0.0759	0.31	13x25	1450	0.066	0.25
	13x25	1400	0.073	0.29				
390	13x20	1410	0.066	0.25	13x30	1750	0.056	0.230
					16x21	1570	0.064	0.230
470	13x25	1790	0.048	0.16	13x35	1920	0.047	0.155
	13x30	1940	0.046	0.14				
	16x21	1850	0.047	0.15				
560	13x30	2169	0.040	0.14	13x40	2100	0.045	0.15
	16x21	1899	0.048	0.16	16x25	1980	0.049	0.17
					18x21	1750	0.059	0.18
680	13x35	2400	0.038	0.13	16x31.5	2160	0.038	0.12
820	13x40	2640	0.032	0.11	16x35.5	2380	0.032	0.11
	16x25	2450	0.037	0.12	18x25	2040	0.042	0.14
	18x21	2300	0.042	0.15				
1000					16x41	2570	0.033	0.1
					18x31.5	2220	0.036	0.12
1200	16x31.5	2690	0.029	0.080	18x35.5	2570	0.033	0.1
	18x25	2520	0.036	0.120				
1500	16x35.5	2736	0.026	0.073	18x41	3150	0.032	0.1
	18x31.5	2970	0.03	0.085				
1800	16x41	3200	0.024	0.072				
	18x35.5	3200	0.025	0.069				
2200	18x41	3300	0.023	0.064				

Cap(uF)	WV	100		
		Size	Ripple	Impedance
			20°C	-10°C
8.2		5x11	146	1.54
18		6.3x11	240	0.63
33		8x11.5	415	0.42
47		8x16	526	0.4
56		10x12.5	560	0.35
68		8x20	660	0.30
82		10x16	700	0.22
100		10x20	935	0.15
		13x16	875	0.16
120		10x25	1050	0.14
150		13x20	1280	0.094
220		13x25	1500	0.066
270		13x30	1780	0.056
		16x21	1580	0.064
330		13x35	1920	0.047
390		13x40	2100	0.040
		16x25	1940	0.049
		18x21	1750	0.059
470		16x31.5	2160	0.036
		18x25	2040	0.042
560		16x35.5	2340	0.032
		18x31.5	2220	0.034
680		16x41	2570	0.030
		18x35.5	2570	0.030
820		18x41	3150	0.029
				0.084

Ripple Current (mA,rms) at 115°C 100KHz

Max Impedance (Ω) at 20°C 100KHz