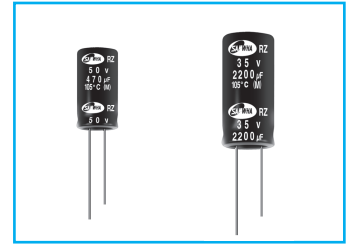


## RZ Extremely Low Impedance Series



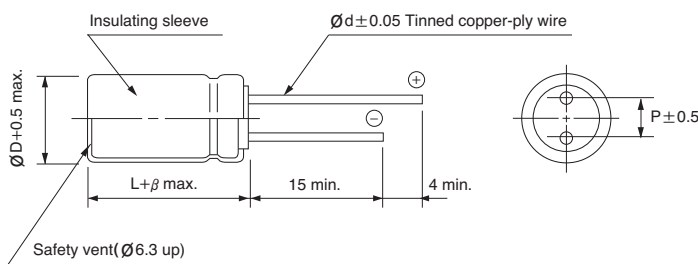
- Extremely low impedance at high frequency
- High reliability withstanding 5000 hours load life at 105°C (2000/3000 hours for smaller case sizes as specified below)
- Ideally suited for use in switching power supplies
- Complied to the RoHS directive



Item	Characteristics															
Operating temperature range	-55 ~ +105°C															
Leakage current max.	I = 0.01CV or 3µA whichever is greater (after 2 minutes) I = 0.03CV or 4µA whichever is greater (after 1 minute)															
Capacitance tolerance	±20% at 120Hz, 20°C															
Dissipation factor max. (at 120Hz, 20°C)	Capacitance > 1000µF : tanδ increases by 0.02 for each 1000µF from below value															
	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> </tr> <tr> <td>tanδ</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> </tr> </table>	WV	6.3	10	16	25	35	50	63	tanδ	0.22	0.19	0.16	0.14	0.12	0.10
WV	6.3	10	16	25	35	50	63									
tanδ	0.22	0.19	0.16	0.14	0.12	0.10	0.08									
Low temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>WV</td> <td>6.3, 10</td> <td>16~35</td> <td>50, 63</td> </tr> <tr> <td>Z-55°C/Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> </tr> </table>	WV	6.3, 10	16~35	50, 63	Z-55°C/Z+20°C	4	3	2							
	WV	6.3, 10	16~35	50, 63												
Z-55°C/Z+20°C	4	3	2													
Load life	After an application of DC bias voltage plus the rated AC ripple current for 5000 hours at 105°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.															
	<table border="1"> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>tanδ</td> <td>Less than 200% of specified value</td> </tr> </table>	Leakage current	Less than specified value	Capacitance change	Within ±20% of initial value	tanδ	Less than 200% of specified value									
	Leakage current	Less than specified value														
	Capacitance change	Within ±20% of initial value														
tanδ	Less than 200% of specified value															
Ø5, 6.3 products are for 2000 hours, Ø8 products are for 3000 hours																
Shelf life (at 105°C)	After leaving capacitors under no load at 105°C for 1000 hours. The measurement shall be performed at 20°C by the KS C 6503 clause 5.1.															
	<table border="1"> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>tanδ</td> <td>Less than 150% of specified value</td> </tr> </table>	Leakage current	Less than specified value	Capacitance change	Within ±20% of initial value	tanδ	Less than 150% of specified value									
	Leakage current	Less than specified value														
	Capacitance change	Within ±20% of initial value														
tanδ	Less than 150% of specified value															

### DRAWING

Unit : mm



ØD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Ød	0.5	0.5	0.6	0.6	0.6	0.8	0.8
β	1.5			2.0			

MINIATURE TYPES

### FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

µF \ Frequency	120Hz	1kHz	10kHz	50kHz	100kHz ≤
~ 33	0.40	0.65	0.82	0.91	1.00
47 ~ 220	0.50	0.70	0.84	0.92	1.00
330 ~ 680	0.55	0.75	0.86	0.93	1.00
1000 ~ 1500	0.60	0.80	0.88	0.94	1.00
2200 ~ 15000	0.70	0.85	0.90	0.95	1.00

# MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

**RZ** series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Item μF	6.3			10			16			25		
	ØD×L (mm)	Impedance (Ω)max.	Ripple current (mA rms)	ØD×L (mm)	Impedance (Ω)max.	Ripple current (mA rms)	ØD×L (mm)	Impedance (Ω)max.	Ripple current (mA rms)	ØD×L (mm)	Impedance (Ω)max.	Ripple current (mA rms)
		20°C 100kHz	105°C 100kHz		20°C 100kHz	105°C 100kHz		20°C 100kHz	105°C 100kHz		20°C 100kHz	105°C 100kHz
33										5×11	0.80	155
47							5×11	0.80	155	6.3×11	0.55	210
68				5×11	0.80	155	6.3×11	0.50	220	6.3×11	0.36	260
100	5×11	0.85	150	6.3×11	0.55	210	6.3×11	0.35	265	8×11.5	0.24	383
150	6.3×11	0.49	225	6.3×11	0.35	265	8×11.5	0.23	388	8×11.5	0.16	460
220	6.3×11	0.30	285	8×11.5	0.24	387	8×11.5	0.16	460	10×12.5	0.13	600
330	8×11.5	0.20	292	8×11.5	0.16	460	10×12.5	0.12	625	10×16	0.095	750
470	10×12.5	0.14	575	10×12.5	0.13	600	10×16	0.09	770	10×20	0.065	1020
680	10×16	0.11	700	10×16	0.09	770	10×20	0.065	1020	12.5×20	0.046	1392
1000	10×20	0.075	950	10×20	0.060	1060	12.5×20	0.047	1411	12.5×25	0.036	1660
1500	10×25	0.055	1220	12.5×20	0.045	1417	12.5×25	0.036	1660	16×20	0.034	1770
2200	12.5×20	0.043	1438	12.5×25	0.034	1710	16×20	0.033	1800	16×25	0.028	2051
3300	12.5×25	0.034	1710	16×20	0.031	1850	16×25	0.027	2095	16×35.5	0.020	2680
4700	16×25	0.032	1935	16×31.5	0.023	2420	16×35.5	0.020	2680	18×40	0.018	2960
6800	16×31.5	0.024	2370	16×35.5	0.020	2680	18×35.5	0.018	2900			
10000	16×40	0.020	2750	18×40	0.017	3040						
15000	18×40	0.018	2960									

WV Item μF	35			50			63		
	ØD×L (mm)	Impedance (Ω)max.	Ripple current (mA rms)	ØD×L (mm)	Impedance (Ω)max.	Ripple current (mA rms)	ØD×L (mm)	Impedance (Ω)max.	Ripple current (mA rms)
		20°C 100kHz	105°C 100kHz		20°C 100kHz	105°C 100kHz		20°C 100kHz	105°C 100kHz
1.0				5×11	4.0	36			
1.5				5×11	3.8	45			
2.2				5×11	3.5	54			
3.3				5×11	3.0	66			
4.7				5×11	2.2	81			
6.8				5×11	1.8	91			
10				5×11	1.4	115	5×11	1.06	135
15				5×11	0.93	145	6.3×11	0.73	185
22	5×11	0.75	160	6.3×11	0.65	195	6.3×11	0.52	215
33	6.3×11	0.49	225	6.3×11	0.43	240	8×11.5	0.35	320
47	6.3×11	0.34	270	8×11.5	0.30	344	8×11.5	0.25	365
68	8×11.5	0.24	384	8×11.5	0.20	410	10×12.5	0.19	495
100	8×11.5	0.16	460	10×16	0.16	581	10×20	0.12	750
150	10×12.5	0.12	625	10×20	0.10	820	10×25	0.09	950
220	10×16	0.09	770	10×25	0.075	1040	12.5×20	0.065	1140
330	10×20	0.060	1060	12.5×20	0.055	1281	12.5×25	0.049	1420
470	12.5×20	0.046	1401	12.5×25	0.044	1500	16×25	0.042	1700
680	12.5×25	0.036	1660	16×20	0.040	1630	16×31.5	0.032	2050
1000	16×20	0.034	1770	16×31.5	0.030	2120	18×35.5	0.029	2280
1500	16×31.5	0.028	2385	16×40	0.026	2410			
2200	16×35.5	0.020	2680	18×40	0.024	2560			
3300	18×40	0.017	3040						