



ELECTROLYTIC CAPACITOR-EXR Series

EXR Series

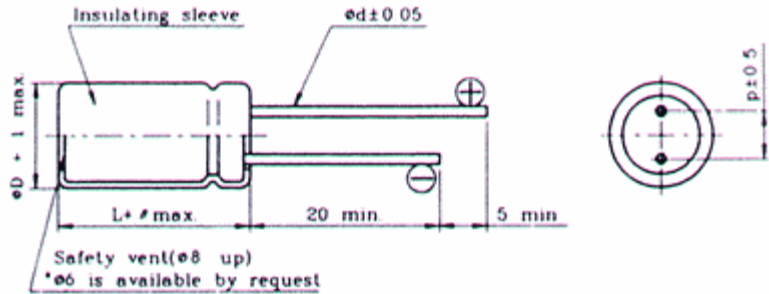
1. Has a high ripple current, low IMP and long life characteristics.
2. Suitable for output of switching power supplies.

■ Characteristics

Voltage Range	6.3 ~ 100V								
Capacitance Range	1 ~ 1000 μ F								
Temperature	-55 ~ +105 $^{\circ}$ C								
Leakage Current	I=0.01CV or 3 μ A whichever is greater (After 2 minutes.) I=0.03CV or 4 μ A whichever is greater (After 1 minutes.)								
Capacitance Tolerance	\pm 20% at 120Hz 20 $^{\circ}$ C								
Dissipation factor (at 120Hz 20 $^{\circ}$ C)	WV	6.3	10	16	25	35	50	63	100
	tan δ	0.24	0.20	0.16	0.12	0.12	0.10	0.08	0.08
	For capacitance > 1000 μ F. add 0.02 for every 1000 μ F.(at 120Hz 20 $^{\circ}$ C)								
Low temperature Charecteristics	Impedance ratio at 120Hz								
	Rated voltage	6.3~10			16~35		50~100		

	Z-25°C / 20°C	4	3	2
Load Life	after apilon of the rated voitage for 2000hrs at 105°C			
	Leakage current	Less than specified value		
	Capacitance change	Within ±20% of initial value		
	tanδ	Less than 200% of specitied value		
Shelf life(at 105°C)	After 1000hrs no load test, leakage current, capacitance and tanδ are same as load life value.			

• DRAWING



RIPPLE CURRENT COEFFICIENTS

Frequency(Hz)	60	120	400	1k	10k	100k
W.V.	Multiplier					
10~16V	0.45	0.60	0.83	0.94	0.98	1.00
25~35V	0.38	0.50	0.75	0.90	0.97	1.00

50~100V	0.36	0.46	0.70	0.88	0.94	1.00
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Temperature(°C)	65	75	85	95	105
Multiplier	2.12	1.92	1.69	1.50	1.00

ØD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Ød	0.5	0.5	0.5	0.6	0.6	0.8	0.8

• DIMENSIONS, MAXIMUM PERMISSIBLE RIPPLE CURRENT & IMPEDANCE

WV Item	6.3			10			16			25		
	ΦD×L(mm)	Impedance (Ω)max 20°C 100KHZ	Ripple Current mA(rms)	ΦD×L(mm)	Impedance(Ω)max 20°C 100KHZ	Ripple Current mA(rms)	ΦD×L(mm)	Impedance (Ω)max 20°C 100KHZ	Ripple Current mA(rms)	ΦD×L (mm)	Impedance (Ω)max 20°C 100KHZ	Ripple Current mA (rms)
105°C 100KHZ			105°C 100KHZ			105°C 100KHZ			105°C 100KHZ			
4.7												
10												

100							6.3×11	0.65	180	6.3×11	0.25	295
220	6.3×11	0.65	180	6	0.25	295	8×12	0.25	295	8×14	0.15	555
330	8×12	0.25	295	8×12	0.25	295	8×14	0.15	555	8×14	0.15	555
470	8×14	0.25	295	8×12	0.15	555	10×12.5	0.12	587	10×16	0.09	760
680	8×12	0.17	428	8×14	0.10	805	10×16	0.08	850	10×21	0.062	1102
1000	8×12	0.10	555	10×12.5	0.08	760	10×21	0.068	1050	13×21	0.052	1220
1500	10×16	0.08	801	10×21	0.07	1000	13×21	0.045	1575	13×26	0.035	1830
2200	10×21	0.068	1050	10×21	0.052	1220	13×21	0.039	1660	16×26	0.030	1950
3300	10×21	0.052	1220	13×21	0.039	1660	16×26	0.03	1950	16×26	0.022	2150
4700	13×21	0.039	1660	13×26	0.03	1950	16×31	0.022	2150	16×36	0.018	2400
6800	13×26	0.03	1950	16×26	0.022	2150	16×31	0.018	2400			
10000	16×26	0.022	2150	16×31	0.018	2400	18×36	0.015	2800			

• DIMENSIONS, MAXIMUM PERMISSIBLE RIPPLE CURRENT & IMPEDANCE

WV	35			50			63			100			
	Item	ΦD×L (mm)	Lmpedonce (Ω)max 20°C 100KHZ	Ripple Current mA(rms)	ΦD×L (mm)	Impedonce (Ω)max 20°C 100KH Z	Ripple Current mA(rms)	ΦD×L (mm)	Lmpedonce (Ω)max 20°C	Ripple Current mA(rms)	ΦD×L (mm)	Lmpedonce (Ω)max 20°C 100KH Z	Ripple Current mA(rms)
μF			105°C 100KHZ			105°C 100KHZ			105°C 100KHZ			105°C 100KHZ	

								100KHZ				
4.7				5×11	2.50	90	5×11	2.50	90	5×11	4.50	80
10				5×11	2.0	110	5×11	2.0	110	6.3×11	1.80	117
22				5×11	1.35	140	6.3×11	0.95	173	8×12	0.68	206
33	5×11	0.65	180	6.3×11	1.35	140	6.3×11	0.71	213	10×16	0.48	293
47	6.3×11	0.65	180	6.3×11	0.74	220	8×12	0.65	300	10×16	0.37	382
68	6.3×11	0.45	260	8×12	0.51	319	10×12.5	0.45	419	10×21	0.28	501
100	8×12	0.25	295	10×12	0.35	469	10×16	0.31	558	13×21	0.18	714
220	10×16	0.15	555	10×21	0.21	796	13×21	0.20	977	16×26	0.10	1282
330	10×16	0.09	760	10×21	0.19	1055	13×21	0.12	1298	16×31	0.09	1563
470	10×21	0.068	1050	13×21	0.10	1365	13×26	0.081	1688	18×32	0.076	1907
680	13×21	0.047	1522	13×26	0.077	1790	16×26	0.065	2252	18×40	0.062	2387
1000	13×26	0.039	1660	16×26	0.053	2408	16×31	0.049	2988			
1500	16×26	0.026	2490	16×31	0.045	2920						
2200	16×31	0.022	2150	18×36	0.037	3320						
3300	16×36	0.016	2650									