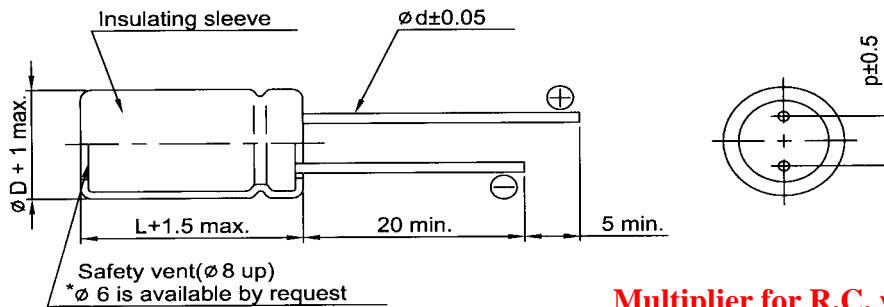


- EXR series capacitors are ideal for use in switching power supplies.
- Other High Frequency Applications.
- **Low Impedance** and long life.

Characteristics

Voltage Range	6.3 to 100 VDC				160 to 450 VDC				
Capacitance Range	0.47 to 15000uF				0.47 to 470uF				
Temperature Range	-40 to +105°C				-25 to +105°C				
Leakage Current	I ≤ 0.01CV or 2uA, whichever is greater 3 minutes after Rated Voltage applied				I ≤ 0.03CV or 3uA, whichever is greater 3 minutes after Rated Voltage applied				
Capacitance Tolerance	±20% at 120Hz, 20°C (10% Tol. is available upon request)								
Dissipation Factor	Working Voltage (V)	6.3	10	16	25	35	50	63	100
	tan δ (%) max	22	19	16	14	12	10	9	8
	Working Voltage (V)	160	200	250	350	400	450		
	tan δ (%) max	12	12	12	15	15	17		
Low temperature Characteristics (120Hz)	For capacitance > 1000uF, add 0.02 for every 1000uF.(at 20°C, 120Hz)								
	Working Voltage (V)	6.3	10	16	25	35	50	63	100
	Z-25°C/Z 20°C	4	3	3	3	3	3	2	2
	Z-40°C/Z 20°C	8	6	4	3	3	3	3	3
	Working Voltage (V)	160	200	250	350	400	450		
	Z-25°C/Z 20°C	2	2	3	5	5	6		
Load life :			After the rated voltage with ripple current has been applied for at 105°C			Capacitance change		Within ±20% of initial value	
	D φ	Life Hours				D.F. tanδ		200% or less of initial specified value	
	5 – 6.3 φ	2000	(160V ~ 450V : 2000HRS)			Leakage current		Less than initial specified value	
	8 φ	3000							
≥ 10 φ	5000								
Shelf life (at 105°C)		After 1000 hrs no load: test the leakage current, capacitance and tan δ are same as load life value.							



Multiplier for R.C. vs Temperature

Drawing

Dφ	5	6.3	8	10	13	16	18
p	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dφ	0.5	0.5	0.5	0.6	0.6	0.8	0.8

Temp.(°C)	45	60	70	85	95	105
Multiplier	2.10	1.90	1.65	1.40	1.25	1.00

Ripple Current Coefficients

Frequency (Hz)	60	120	400	1K	10K	50K - 100K
Cap.(uF) / Hz	Multiplier					
Cap. ≤ 10	0.47	0.59	0.76	0.85	0.97	1
10 < Cap. ≤ 100	0.52	0.62	0.80	0.89	0.97	1
100 < Cap. ≤ 1000	0.58	0.72	0.84	0.90	0.98	1
1000 < Cap.	0.63	0.78	0.87	0.91	0.98	1

WV (SV)	400 (450)			450 (500)		
Spec. uF	DφxL(mm)	Impedance (Ω)max 20°C 100KHZ	Ripple Current mA(rms) 105°C 100KHz	DφxL(mm)	Impedance (Ω)max 20°C 100KHZ	Ripple Current mA(rms) 105°C 100KHz
		1	8x12		16.5	36
2.2	10x12.5	8.58	56	10x16	10.25	60
3.3	10x12.5	5.01	86	10x16	5.65	89
4.7	10x21	4.82	96	13x21	5.01	105
10	13x21	3.32	135	13x26	3.78	140
22	13x26	2.65	167	13x26	2.80	160
33	16x26	1.21	277	16x26	2.20	205
47	16x31.5	0.92	350	16x36	1.02	352
68	18x32	0.75	416	18x36	0.78	430
100	18x41	0.52	560			