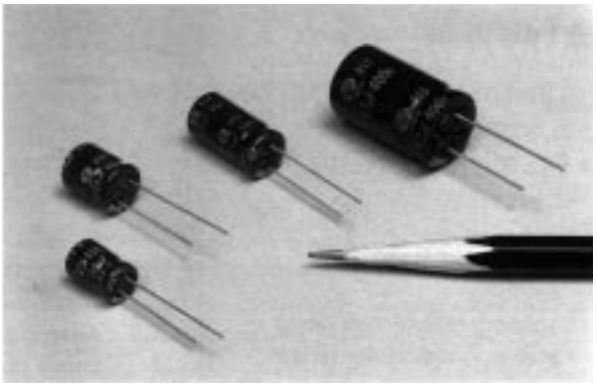
RSS SERIES

ALUMINUM ELECTROLYTIC CAPACITORS
85˚C Standard, Radial Leads

Features

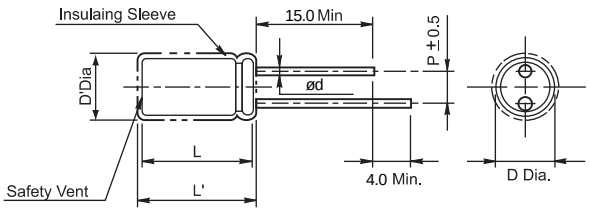


- 85˚C Standard, Radial
- High performance
- Very high CV capacity per unit volume
- Ideal for automatic insertion
- Load life of 2000 hours at 85˚C
- Possible cleaning by Freon TE (to 100V : 3 min)

Specifications

Item	Performance Characteristics										
Operating temperature range	-40˚C ~ +85˚C			-40˚C ~ +85˚C			-25˚C ~ +85˚C				
Rated working voltage range	6.3V ~ 100V			160V ~ 250V			350V ~ 450V				
Nominal capacitance range	0.1μF ~ 27000μF, ±20%(at 20˚C, 120Hz)										
D.C Leakage current(at 20˚C)	The following specifications shall be satisfied when the rated voltage is applied for the required time.										
	I ≤ 0.01CV or 3μF (2min) Whichever is greater			I ≤ 0.01CV + 10μA (3min)			I ≤ 0.02CV + 30μA (3min)				
	Where I= Leakage current(μA) C= Nominal capacitance (μF) V= Rated voltage (V)										
Tan δ (max., at 20˚C, 120Hz)	W.V(V)	6.3	10	16	25	35	50	63	100	160~250	350~450
	Tan δ	0.26	0.22	0.17	0.15	0.12	0.10	0.10	0.08	0.20	0.20
	When capacitance is over 1000μF, Tan δ shall be added 0.02 to the listed value with increase of every each 1000 μF.										
Characteristics at low temperature(max.) (impedance ratio at 120Hz)	W.V(V)	6.3	10	16	25	35	50~100	160~250	350~450		
	Z-25˚C/Z20˚C	4	3	2	2	2	2	2	6		
	Z-40˚C/Z20˚C	10	8	6	4	3	3	3	–		
Load life	After applying rated working voltage for 2000 hours at +85˚C and then being stabilized at +20˚C, capacitors shall meet following limits.										
	Capacitance change	Within ± 20% of initial measured value									
	Tan δ	≤ 150% of initial specified value									
	Leakage current	≤ Initial sepcified value									
Shelf life	After storage for 1000 hours at +85˚C with no voltage applied and then being stabilized at +20˚C, capacitors shall meet following limits.										
	Capacitance change	Within ± 20% of initial measured value									
	Tan δ	≤ 150% of initial specified value									
	Leakage current	≤ 200% of initial sepcified value									

Case sizes and Dimensions



• Standard lead style

ø D	5.0	6.3	8.0	10.0	13.0	16.0	18.0	22.0	25.0
P	2.0	2.5	3.5	5.0		7.5		10.0	12.5
ø d	0.5		0.6			0.8		1.0	

D' = [D +0.5] Max. L' = [L+1.0]Max. at D ≤ 8.0
L' = [L+1.5]Max. at D ≥10.0

Ripple current coefficient

• Frequency

Cap(μF) \ Freq(Hz)	50	120	400	1K	10K	50~100K
Cap ≤ 10	0.8	1	1.30	1.45	1.65	1.70
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

• Temperature

Temperature	60˚C	70˚C	85˚C
Factor	1.65	1.37	1.0

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Dimensions & Maximum Permissible ripple current [mA(rms) at 85°C, 120Hz]

øD x L(mm)

W.V(V) / Cap(μF)	6.3(0J)		10(1A)		16(1C)		25(1E)		35(1V)		50(1H)		63(1J)		100(2A)	
	SIZE	I_R	SIZE	I_R	SIZE	I_R	SIZE	I_R	SIZE	I_R	SIZE	I_R	SIZE	I_R	SIZE	I_R
0.1											5x11	6			5x11	6
0.22											5x11	8			5x11	8
0.33											5x11	10			5x11	10
0.47											5x11	14			5x11	14
1.0											5x11	19			5x11	21
2.2											5x11	29			5x11	32
3.3											5x11	37			5x11	45
4.7											5x11	45			5x11	52
10											5x11	68	5x11	72	6.3x11	85
22									5x11	95	5x11	105	6.3x11	120	8x11.5	142
33							5x11	110	5x11	120	6.3x11	140	6.3x11	157	10x12.5	207
47					5x11	130	5x11	140	6.3x11	157	6.3x11	172	8x11.5	210	10x16	284
100	5x11	135	5x11	150	6.3x11	200	6.3x11	210	8x11.5	258	8x11.5	283	10x12.5	365	13x20	470
220	6.3x11	240	6.3x11	255	8x11.5	330	8x11.5	360	10x12.5	470	10x16	545	10x12.5	638	16x25	820
330	6.3x11	310	8x11.5	365	8x11.5	415	10x12.5	523	10x16	615	10x20	720	10x20	910	16x25	1095
470	8x11.5	400	8x11.5	430	10x12.5	550	10x16	730	10x20	810	13x20	965	13x20	1150	16x31.5	1370
1000	10x12.5	690	10x16	810	10x20	1020	13x20	1220	13x25	1510	16x25	1760	13x25	1850	22x40	2610
2200	13x20	1240	13x20	1310	13x25	1590	16x25	1835	16x31.5	2090	18x35.5	2540	22x40	3150	25x40	3510
3300	13x20	1460	13x25	1685	16x25	2010	16x31.5	2315	18x35.5	2740	22x40	3500	16x31.5	4060		
4700	16x25	1990	16x25	2120	16x31.5	2485	18x35.5	2875	22x40	3660	25x40	4270	22x40			
6800	16x25	2275	16x31.5	2550	18x35.5	2990	22x40	3900	25x40	4510			25x40			
10000	16x31.5	2760	18x35.5	3160	22x40	3920	25x40	4550								
15000	18x35.5	3270	22x40	4020	25x40	4590										
22000	22x40	4050	25x40	4700												
27000	25x40	4750														

W.V(V) / Cap(μF)	160(2C)		200(2D)		250(2E)		350(2V)		400(2G)		450(2W)	
	SIZE	I_R	SIZE	I_R	SIZE	I_R	SIZE	I_R	SIZE	I_R	SIZE	I_R
1.0	6.3x11	22	6.3x11	22	6.3x11	22	8x11.5	24	8x11.5	24	8x11.5	24
2.2	6.3x11	33	6.3x11	33	8x11.5	39	10x12.5	45	10x12.5	47	10x12.5	47
3.3	8x11.5	51	8x11.5	51	10x12.5	58	10x12.5	56	10x16	58	10x16	58
4.7	8x11.5	57	10x12.5	64	10x16	73	10x16	72	10x16	74	10x20	76
10	10x16	95	10x16	95	10x20	108	10x20	118	13x20	132	13x20	135
22	10x20	171	10x20	171	13x20	205	13x25	215	16x25	235	16x25	235
33	13x20	248	13x25	265	13x25	275	16x25	270	16x31.5	298	16x35.5	305
47	13x25	295	13x25	305	16x25	340	16x35.5	368	16x35.5	405	18x40	415
100	16x25	530	16x31.5	540	18x35.5	560	18x40	640	22x40	720	25x40	740
220	18x35.5	890	18x40	910	22x40	990	25x50	1260				
330	22x40	1220	22x40	1290	25x40	1410						
470	25x40	1740	25x40	1810								

I_R : Maximum permissible ripple current [mA(rms) at 85˚C, 120Hz]

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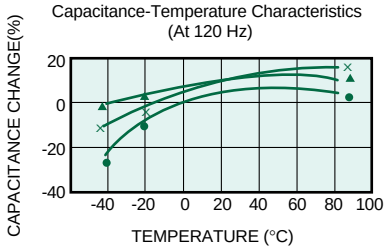
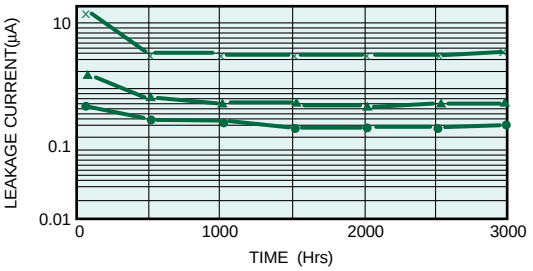
PERFORMANCE CURVES

● ● 10V–100μF
×-× 35V–3300μF
▲-▲ 100V–47μF

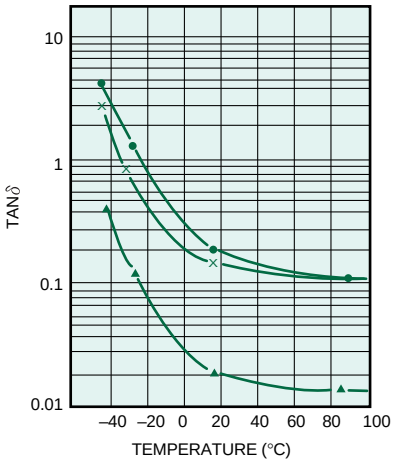
Capacitance-Temperature Characteristics
(At 120 Hz)



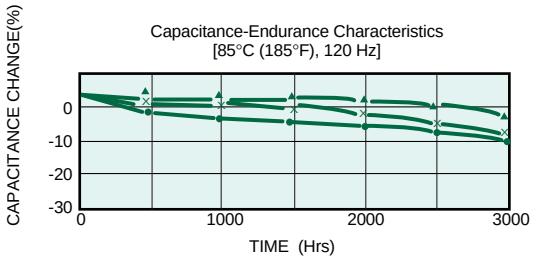
Leakage Current-Endurance Characteristics
[85°C (185°F), 120 Hz]



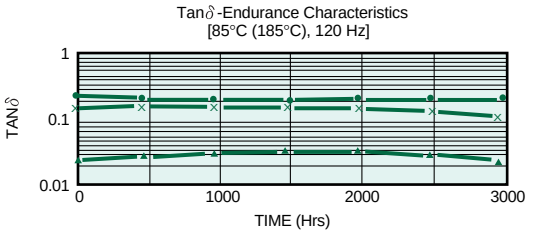
Tan δ -Temperature Characteristics
(At 120 Hz)



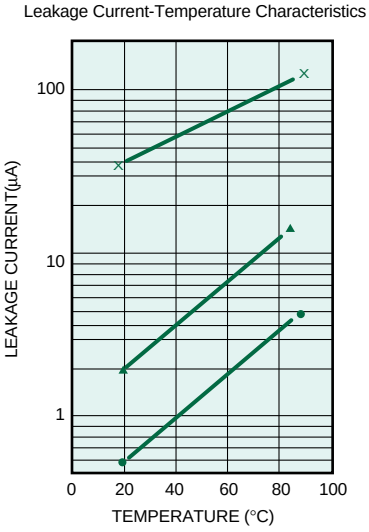
Capacitance-Endurance Characteristics
[85°C (185°F), 120 Hz]



Tanδ-Endurance Characteristics
[85°C (185°C), 120 Hz]



Leakage Current-Temperature Characteristics



Impedamce-Frequency Characteristics