FEATURESS

1、High temperature and long load life

SPECIFICATIONS

Item	Performance Characteristics	
Operating Temperature Range	-40 to +105℃	
Rated Working voltage Range	10V to 100V DC	160 to 450V DC
Nominal Capacitance Range	2.2 to 4700(uF)	
Capacitance Tolerance	±20%（120Hz，+20℃）	
Leakage Current	I≤0.01CV or 4(uA)after 2 minutes whichever is grated working voltage at +20℃	I≤0.03CV +40(uA)or 4(uA)after 2 minutes whichever is greater measured with rated working voltage at +20℃

Dissipation Factor tan δ

(120Hz+20℃)

Working voltage(V)	6.3	10	16	25	35	50	63	100
Tan δ (max.)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08

Working voltage(V)	160	200	250	350	400	450
Tan δ (max.)	0.15	0.15	0.15	0.15	0.15	0.15

For capacitance value >1000uF add 0.02per another 1000uF

Maximum permissible ripple current

Refer to standard produce table (120HZ,+105℃)Correction factor for frequency

V	Freq.(Hz) / CAP(uF)	50	120	300	1k	10k~
6.3~100	~47	0.75	1.00	1.35	1.57	2.00
	100~470	0.80	1.00	1.23	1.34	1.50
	1000~15000	0.85	1.00	1.10	1.13	1.15
160~450	0.47~220	0.80	1.00	1.25	1.40	1.60
	270~330	0.90	1.00	1.10	1.13	1.15

Multiplier for Ripple Current vs. Temperature

Temperature℃	45	60	70	85	105
Multiplier	2.10	1.90	1.40	1.25	1.00

Low Temperature Characteristics

Impedance ratio max.at 120Hz

Working voltage(V)	6.3	10	16	25	35	50	63	100
Z-25℃/Z+20℃	5	4	3	2	2	2	2	2
Z-40℃/Z+20℃	12	10	8	5	4	3	3	3

Working voltage(V)	160	200	250	350	400	450
Z-40℃/Z+20℃	3	3	4	4	6	15

For capacitance value>1000uF:Add 0.5 per another 1000uF for Z-25℃ /Z+20℃

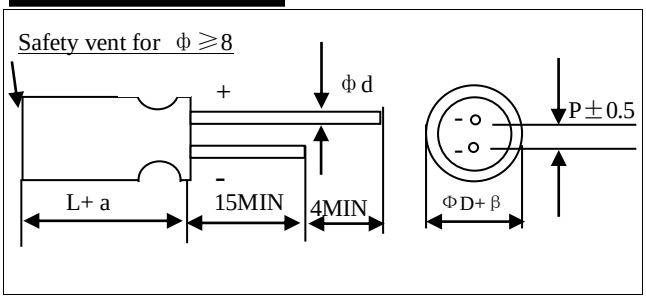
Add 1.0 per another 1000uF for Z-25℃ /Z+20℃

Miniature Aluminum Electrolytic Capacitors

High Temperature Loading	Test conditions Duration :5000 hours Ambient temperature :+105℃ Applied voltage :Rated DC working voltage Post test requirements at +20℃ Leakage current : ≤ Initial specified value Capacitance change : ≤±25% of initial measured value tan δ : ≤200% of initial specified value
Shelf life	Test conditions Duration :1000 hours Ambient temperature :+105℃ Applied voltage : (None) Post test requirements at +20℃ Leakage current : ≤ Initial specified value Capacitance change : ≤±20% of initial measured value tan δ : ≤200% of initial specified value
Others	JIS C-5141 JIS C-5102

CASE SIZE TABLE

Unit:mm



Dφ	5	6.3	8	10	13	16	18	22
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
dφ（±0.05）	0.5			0.6		0.8		

aMAX	(L＜20)1.5	β MAX	(D<20)0.5
	(L≥20)2.0		(D≥20)1.0

DIMENSIONS

ΦD×L(mm)

WV（SV） / Cap.(uF)	Code	10V(13)		16V(20)		25V(32)		35V(44)		50V(63)	
		1A		1C		1E		1V		1H	
47	476									8×12	310
68	686							8×12	240	8×14	445
82	826							8×14	370		
100	107							8×16	410	10×15	535
220	227	8×12	290	8×12	395	8×14	540	10×17	700	13×21	1090
270	277	8×12	345	8×16	445	8×20	645	10×20	875		
330	337	8×14	445	10×12.5	530	10×15	700	10×25	1000	13×25	1260
470	477	10×12.5	530	10×15	630	10×20	775	13×21	1260	16×26	1400
680	687	10×15	685	10×20	835	13×21	830	13×25	1620	16×30	1780
1000	108	10×20	980	10×20	900	13×21	920	13×30	1800	18×30	2070
2200	228	13×25	1520	13×30	1930	13×40	2280	16×35	2470	18×45	2570
3300	338	13×35	1880	13×40	2220	16×35	2610	18×40	3000		
4700	478	16×32	2250	16×35	2520	18×40	2870			Case size	Allowable ripple

Allowable Ripple（mA rms）at105℃ 120HZ

Miniature Aluminum Electrolytic Capacitors

DIMENSIONS

D×L(mm)

WV(SV)		63V(79)		100V(125)		160V(200)		200V(250)		250V(300)	
Cap.(uF)	Code	1J		2A		2C		2D		2E	
2.2	225									8×12	80
3.3	335					8×12	75	8×12	85	10×12.5	88
4.7	475					8×14	80	8×14	95	10×15	100
10	106					10×15	135	10×20	155	10×20	235
22	226			10×13	320	10×20	190	10×25	350	13×21	370
33	336			10×15	415	10×25	425	13×21	465	16×26	480
47	476	8×14	440	10×25	540	13×21	550	13×25	565	16×30	645
68	686	10×17	535	13×21	630	13×25	670	13×25	770	16×35	800
100	107	10×20	665	13×25	790	16×26	990	16×26	1020	18×36	1100
220	227	13×25	1300	16×30	1380	16×35	1130	18×32	1190	22×40	1190
330	337	16×26	1380	18×36	1580	18×36	1440				
470	477	16×30	1610	18×40	1720						
680	687	18×30	1980								
1000	108	18×36	2170							Case size	Allowable ripple

Allowable Ripple（mA rms）at105℃ 120HZ

ΦD×L(mm)

WV(SV)		350(400)		400V(450)		450V(500)	
Cap.(uF)	Code	2V		2G		2W	
2.2	225	8×12	45	10×12.5	60	10×15	75
3.3	335	10×12.5	90	10×15	95	10×20	105
4.7	475	10×15	105	10×20	125	13×21	112
10	106	13×21	155	13×21	160	13×25	225
22	226	13×25	285	13×25	295	16×26	465
33	336	16×26	450	16×26	465	16×30	490
47	476	16×30	580	16×30	595	18×30	685
68	686	16×35	950	16×35	965	18×36	752
100	107	18×36	1000	18×40	1050	22×35	885
220	227					Case size	Allowable ripple

Allowable Ripple（mA rms）at105℃ 120HZ