



Miniature Aluminum Electrolytic Capacitors

Series

CBD

FEATURES

- 1、 wide operating temperature range ,it as long load life product at 125°C
- 2、 Suit for use in DC or pulse circuits in various electronic and industrial

SPECIFICATIONS

Item	Performance Characteristics								
Operating Temperature Range	-40 to +125°C				-25 to +125°C				
Rated Working voltage Range	10 to 100V DC				160 to 450V DC				
Nominal Capacitance Range	0.47 to 1000(uF)				1 to 100(uF)				
Capacitance Tolerance	±20% (120Hz, +20°C)								
Leakage Current	I≤0.01CV or 3(uA)Whichever is greater				I≤0.03CV+40(uA)				
	after 2 minutes application of rated working voltage at +20°C								
Dissipation Factor tan δ (120Hz+20°C)	Working voltage(V)		10	16	25	35	50	63	100
	tan δ (max.)		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								
Low Temperature Characteristics	Impedance ratio max. at 120Hz								
	Working voltage(V)		10	16~100	160~250	350~450			
	Z-25°C/Z+20°C		3	2	3	6			
	Z-40°C/Z+20°C		6	4					
Multiplier for Ripple Current vs. Frequency	CAP(uF)\Hz		60(50)	120	400	1K	10K	50K-100K	
	Multiplier	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	
Multiplier for Ripple Current vs. Temperature	Temperature°C		45	60	70	85	95	105	125
	Multiplier		1.8	1.55	1.50	1.45	1.30	1.15	1.00
High Temperature Loading	Test conditions Duration : ≤8φ 1000 hours , ≥10φ 2000 hours Ambient temperature :+125°C Applied voltage :Rated DC working voltage Post test requirements at +20°C Leakage current : ≤ Initial specified value Capacitance change : ≤±20% of initial measured value tan δ : ≤300% of initial specified value								

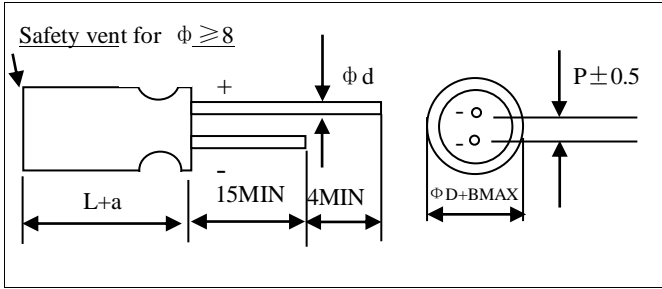


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Shelf life	Test conditions
	Duration : 1000 hours Ambient temperature : +125°C Applied voltage : (None) Post test requirements at +20°C Leakage current : ≤ Initial specified value Capacitance change : ≤ ±20% of initial measured value tan δ : ≤ 300% of initial specified value
Others	JIS C-5141 JIS C-5102

CASE SIZE TABLE

Unit:mm



D φ	5	6.3	8	10	13	16
P	2.0	2.5	3.5	5.0	5.0	7.5
d φ ± 0.05	0.5		0.6		0.8	

aMAX	(L < 20) 1.5
	(L ≥ 20) 2.0

BMAX	(D < 20) 0.5
	(D ≥ 20) 1.0

DIMENSIONS

WV(SV)		10V(13)		16V(20)		25V(32)		35V(44)		50V(63)	
Cap.(μF)	Code	1A		1C		1E		1V		1H	
4.7	475										
10	106									6.3×11	46
22	226					6.3×11	72	6.3×11	80	8×12	86
33	336			6.3×11	90	6.3×11	98	8×12	105	8×12	120
47	476	6.3×11	91	6.3×11	112	8×12	132	10×12.5	155	10×12.5	160
100	107	6.3×11	146	8×12	205	10×12.5	248	10×17	260	10×20	275
220	227	8×12	328	10×12.5	402	10×17	472	10×20	538	13×21	585
330	337	10×12.5	412	10×17	526	10×20	630	13×21	715	13×25	902
470	477	10×17	523	10×20	718	13×21	812	13×25	898	16×26	995
1000	108	10×20	962	13×21	998	16×26	1095	16×30	1205	Case size	Allowable ripple

Allowable Ripple (mA rms) at 125°C 120HZ

WV(SV)		63V(79)		100V(125)		160V(200)		200V(250)		250V(300)	
Cap.(μF)	Code	1J		2A		2C		2D		2E	
0.47	474			6.3×11	15						
1	105			6.3×11	25	6.3×11	31	6.3×11	38	6.3×11	42
2.2	225			6.3×11	30	6.3×11	38	6.3×11	40	8×12	50
3.3	335			6.3×11	35	8×12	40	8×12	46	10×12.5	55
4.7	475	6.3×11	36	8×12	45	8×12	52	10×12.5	62	10×17	70
10	106	8×12	55	10×12.5	72	10×12.5	80	10×17	90	10×20	95
22	226	8×12	92	10×17	98	10×20	125	13×21	132	13×25	160
33	336	10×12.5	130	10×20	155	13×21	165	13×25	170	16×26	186
47	476	10×17	170	13×21	185	13×25	200	16×26	212	16×30	232
100	107	10×20	292	16×26	312	16×26	360	16×30	400		
220	227	13×25	595								



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330	337	16×26	998								Case size	Allowable ripple
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Allowable Ripple (mA rms) at 125°C 120HZ

DIMENSIONS

		φ D×L(mm)					
WV(SV)		350V(400)		400V(450)		450V(500)	
Cap.(uF)	Code	2V		2G		2W	
1	105	8×12	46	8×12	48	8×12	52
2.2	225	10×12.5	55	10×12.5	58	10×17	65
3.3	335	10×17	62	10×17	65	10×20	70
4.7	475	10×20	76	10×20	80	10×25	85
10	106	13×21	112	13×21	116	13×21	120
22	226	16×26	182	16×26	185	16×26	190
33	336	16×30	200	16×30	205	16×30	210
47	476	16×35	246	16×35	250	Case size	Allowable ripple

Allowable Ripple (mA rms) at 125°C 120HZ