ELECTROLYTIC ALUMINUM CAPACITORS

CUBISIC LP

Muecap Bauelemente GmbH
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8 000 h / 105°C

10 V ... 400 V	120 µF ... 68 000 µF	45 (1,772) x 12 (0,472) x 35 (1,378) 45 (1,772) x 12 (0,472) x 50 (1,969) 45 (1,772) x 12 (0,472) x 75 (2,953)	– 55°C + 105°C	Long Life Time

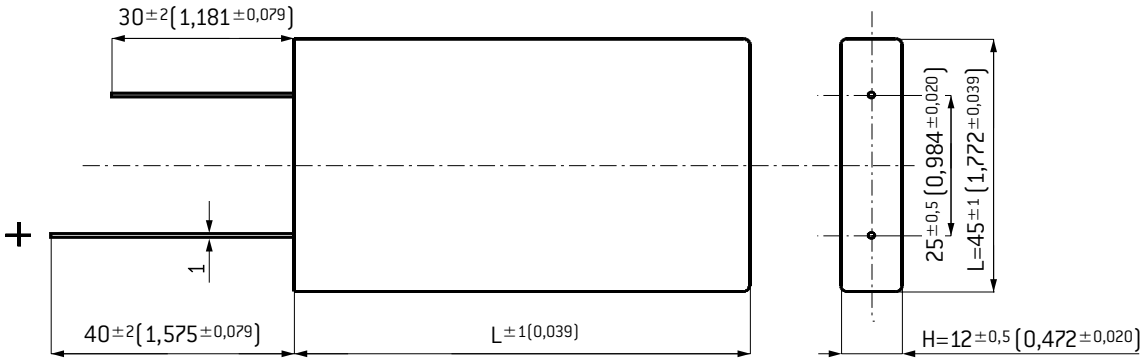
APPLICATIONS

- Low prof lle printed circuit mounting
- Possible mounting with 45 x 12 bracket (A691057)
- Possible thermal dissipation per conduction through lower and upper surface
- Switch mode power supplies, impulse current

Aluminum case: Tin coated leads
Negative pole marked

Tolerance on capacitance at 20°C: ±20 %
Operating temperature : – 55°C +105°C

12 (0,472) height. The best capacitance per area unit



Dimensions in mm (inches)

RESISTANCE TO VIBRATIONS

	Standard
ƒ (Hz)	10 - 2000 Hz
Amplitude	1,5 (0,059)
Acceleration	20 g - 196 m/s²
t (h)	3 x 2 h

SPECIFICATIONS

CECC 30300 Long life
IEC 60 384-4 Long life
DIN 41 240 climatic category: – 55 + 105°C
and GPF: – 55°C + 105°C / 56 days

WITHSTAND STRENGTH OF INSULATING SLEEVE

Insulating resistance at 20°C between leads and mounting hardware: 100 MΩ
Test voltage at 50 Hz 1 min. between leads and mounting hardware: 2000 V
Fire resistance: self extinguish 15 s. (IEC 60 695-2-2)

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Capacitance	Case						Tanδ 100 Hz +20°C max.	ESR 100 Hz +20°C	Z 10 kHz +20°C Typic	I 2 min. +20°C 5 min. max.	I ~ 100 Hz		Code
	I		L		H			Typic			+40°C max.	+105°C max.	
(µF)	mm (inches)		mm (inches)		mm (inches)		(%)	(mΩ)	(mΩ)	(mA)	(A)	(A)	
Rated voltage 10 V													
22000	45	(1,772)	50	(1,969)	12	(0,472)	62	30	22	0,7	17	4,6	A 712000
47000	45	(1,772)	75	(2,953)	12	(0,472)	84	19	15	1,4	20	6,9	A 712001
68000	45	(1,772)	75	(2,953)	12	(0,472)	96	15	10	2,0	20	7,8	A 712002
Rated voltage 16 V													
15000	45	(1,772)	35	(1,378)	12	(0,472)	59	42	31	0,7	12	3,3	A 712020
22000	45	(1,772)	50	(1,969)	12	(0,472)	62	30	22	1,1	17	4,6	A 712021
33000	45	(1,772)	50	(1,969)	12	(0,472)	78	25	20	1,6	19	5,0	A 712022
47000	45	(1,772)	75	(2,953)	12	(0,472)	88	20	16	2,2	20	6,7	A 712023
Rated voltage 25 V													
22000	45	(1,772)	50	(1,969)	12	(0,472)	66	32	24	1,7	17	4,4	A 712040
33000	45	(1,772)	75	(2,953)	12	(0,472)	68	22	18	2,5	20	6,4	A 712041
Rated voltage 35 V													
10000	45	(1,772)	35	(1,378)	12	(0,472)	42	45	35	1,1	12	3,2	A 712060
15000	45	(1,772)	50	(1,969)	12	(0,472)	45	32	22	1,6	17	4,4	A 712061
22000	45	(1,772)	75	(2,953)	12	(0,472)	56	27	24	2,3	20	5,8	A 712062
Rated voltage 40 V													
6800	45	(1,772)	35	(1,378)	12	(0,472)	32	50	38	0,8	11	3,0	A 712080
10000	45	(1,772)	50	(1,969)	12	(0,472)	32	34	26	1,2	16	4,3	A 712081
Rated voltage 50 V													
10000	45	(1,772)	50	(1,969)	12	(0,472)	33	35	27	1,5	16	4,2	A 712100
15000	45	(1,772)	75	(2,953)	12	(0,472)	28	20	15	2,3	20	6,7	A 712101
Rated voltage 63 V													
6800	45	(1,772)	50	(1,969)	12	(0,472)	23	36	25	1,3	16	4,2	A 712120
10000	45	(1,772)	75	(2,953)	12	(0,472)	21	22	17	1,9	20	6,4	A 712121
Rated voltage 80 V													
4700	45	(1,772)	50	(1,969)	12	(0,472)	15	35	23	1,1	16	4,2	A 712140
6800	45	(1,772)	75	(2,953)	12	(0,472)	16	25	19	1,6	20	6,0	A 712141
Rated voltage 100 V													
2200	45	(1,772)	50	(1,969)	12	(0,472)	10	40	25	0,7	15	3,9	A 712160
3300	45	(1,772)	75	(2,953)	12	(0,472)	10	30	22	1,0	20	5,5	A 712161
Rated voltage 160 V													
1000	45	(1,772)	50	(1,969)	12	(0,472)	10	90	70	0,5	10	2,6	A 712180
1500	45	(1,772)	75	(2,953)	12	(0,472)	10	70	48	0,7	14	3,6	A 712181
Rated voltage 200 V													
470	45	(1,772)	35	(1,378)	12	(0,472)	10	200	130	0,3	5,6	1,5	A 712200
680	45	(1,772)	50	(1,969)	12	(0,472)	10	100	63	0,4	9,3	2,5	A 712201
1000	45	(1,772)	75	(2,953)	12	(0,472)	10	90	57	0,6	12	3,2	A 712202
Rated voltage 250 V													
470	45	(1,772)	50	(1,969)	12	(0,472)	10	180	120	0,4	7	1,9	A 712220
680	45	(1,772)	75	(2,953)	12	(0,472)	10	100	63	0,5	11	3,0	A 712221
Rated voltage 350 V													
330	45	(1,772)	50	(1,969)	12	(0,472)	10	280	180	0,3	5,6	1,5	A 712240
470	45	(1,772)	75	(2,953)	12	(0,472)	10	220	100	0,5	7,6	2,0	A 712241
Rated voltage 400 V													
220	45	(1,772)	50	(1,969)	12	(0,472)	10	320	220	0,3	5,2	1,4	A 712260
330	45	(1,772)	75	(2,953)	12	(0,472)	10	220	110	0,4	7,6	2,0	A 712261

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EXPECTED LIFE

as a function of temperature and ripple current

PERMISSIBLE RIPPLE CURRENT I (R.M.S. VALUE)

versus frequency ƒ:
I ~: permissible r.m.s. current at 100 Hz

ƒ (Hz)	50	100	300	600	1 000	10 000	≥ 50 000
I	0,8 x I~	I~	1,2 x I~	1,3 x I~	1,35 x I~	1,5 x I~	1,6 x I~