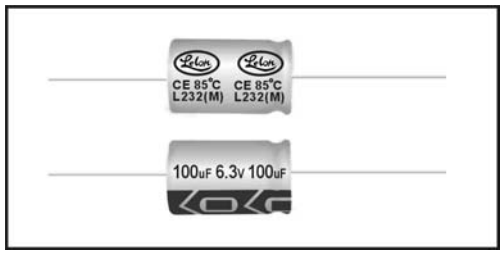
Aluminum Electrolytic Capacitors TEA

CE02 Type

Features
- 85℃, 2000 hours assured
- For general purpose application



SPECIFICATIONS

Items	Performance
Operating Temperature Range	6.3 ~ 250V: -40℃ ~ +85℃ ; 350 ~ 450V: -25℃ ~ +85℃
Capacitance Tolerance	±20% (at 120Hz, 20℃)
Leakage Current (at 20℃)	Rated voltage: ≦100V / >100V; Time: after 2 minutes / after 5 minutes; Leakage Current: I = 0.02CV or 3 (μA) whichever is greater / CV≦1000 I=0.03CV+15(μA) / CV>1000 I=0.02CV+25(μA). Where, C= rated capacitance in μF. V = rated DC working voltage in V.
Dissipation Factor (Tan δ at 120 Hz, 20℃)	When the capacitance exceeds 1000 μF, 0.02 shall be added every 1000 μF increase.
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below.
Load Life Test	* The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied for 2000 hrs at 85℃
Shelf Life Test	* The above specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1000 hrs at 85℃ without voltage applied.
Ripple Current & Frequency Multipliers	
Other Standards	JIS C 5101-4

Rated Voltage			6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
Impedance Ratio	Z(-25℃)/Z(+20℃)	φD<16	6	4	3	3	2	2	2	2	3	6	8	12	14	16
		φD≧16	8	6	4	4	3	3	3	3						
	Z(-40℃)/Z(+20℃)	φD<16	10	8	6	6	4	3	3	3	4	8	10	-	-	-
		φD≧16	18	16	12	10	8	8	6	6						

Test Time	2000 hrs
Capacitance Change	Within ±20%of initial value
Dissipation Factor	Less than 200% of specified value
Leakage Current	Within specified value

Test Time		1000 hrs
Capacitance Change		Within ±20%of initial value
Dissipation Factor		Less than 200% of specified value
Leakage Current	6.3 ~ 100V	Within specified value
	160 ~ 450V	Less than 200% of specified value

Freq.(Hz) / Cap.(μF)	60	120	500	1K	10K up
Under 100	0.70	1.00	1.30	1.40	1.50
100 to 1000	0.75	1.00	1.20	1.30	1.35
1000 up above	0.80	1.00	1.10	1.12	1.15

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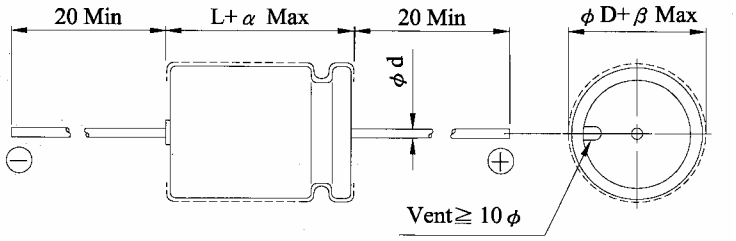
DIAGRAM OF DIMENSIONS



Unit: mm

LEAD DIAMETER

φ D	5	6.3	8	10	13	16	18	22	25
φ d	0.6				0.8			1.0	
α	1.5				2.0				
β	0.5				1.0				

Dimension: φ D × L(mm)

Ripple Current: mA/rms at 120 Hz, 85°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

μF \ V.DC	Contents	6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
		φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA
0.1	0R1											5 × 12	1.5	5 × 12	3	5 × 12	3
0.22	R22											5 × 12	3.5	5 × 12	4.5	5 × 12	5
0.33	R33											5 × 12	5	5 × 12	7.5	5 × 12	8
0.47	R47											5 × 12	6	5 × 12	9	5 × 12	9
1	010											5 × 12	10	5 × 12	15	5 × 12	15
2.2	2R2											5 × 12	20	5 × 12	30	5 × 12	30
3.3	3R3											5 × 12	30	5 × 12	36	5 × 12	41
4.7	4R7											5 × 12	42	5 × 12	44	6.3 × 13	50
10	100									5 × 12	55	6.3 × 13	65	6.3 × 13	68	6.3 × 13	72
22	220					5 × 12	71	5 × 12	76	6.3 × 13	88	6.3 × 13	96	6.3 × 13	109	8 × 16	133
33	330			5 × 12	78	5 × 12	88	6.3 × 13	100	6.3 × 13	115	6.3 × 13	126	8 × 13	154	10 × 17	190
47	470	5 × 12	87	5 × 12	94	6.3 × 13	111	6.3 × 13	119	6.3 × 13	138	8 × 13	174	8 × 16	214	10 × 21	237
100	101	6.3 × 13	136	6.3 × 13	145	6.3 × 13	174	8 × 13	215	8 × 16	232	10 × 17	296	10 × 17	326	13 × 22	377
220	221	6.3 × 13	215	6.3 × 13	231	8 × 13	298	8 × 16	319	10 × 17	401	10 × 21	459	13 × 22	527	16 × 27	625
330	331	8 × 16	305	8 × 16	327	8 × 16	365	10 × 17	454	10 × 21	514	13 × 22	613	13 × 22	675	16 × 33	793
470	471	8 × 16	364	8 × 16	390	8 × 16	460	10 × 17	524	10 × 21	613	13 × 22	731	13 × 27	780	16 × 37	942
1000	102	10 × 17	662	10 × 17	671	10 × 21	775	13 × 22	873	13 × 27	955	16 × 33	1111	18 × 37	1249	22 × 43	1359
2200	222	13 × 22	929	13 × 22	1051	13 × 22	1125	16 × 27	1344	16 × 33	1421	18 × 36	1699	22 × 43	1744		
3300	332	13 × 27	1150	13 × 27	1288	16 × 27	1454	16 × 33	1611	16 × 37	1640	22 × 43	2027	25 × 52	2309		
4700	472	13 × 27	1354	16 × 27	1552	16 × 33	1650	18 × 37	1881	22 × 43	2208	25 × 43	2347				
10000	103	16 × 37	2062	18 × 42	2122	22 × 43	2503	22 × 52	2893								
22000	223	22 × 43	3097														

μF \ V.DC	Contents	160V (2C)		200V (2D)		250V (2E)		350V (2V)		400V (2G)		450V (2W)	
		φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA
1	010	6.3 × 13	7	6.3 × 16	9	6.3 × 16	12	8 × 16	13	8 × 16	14	8 × 16	15
2.2	2R2	6.3 × 13	15	8 × 16	16	8 × 16	17	8 × 20	19	10 × 17	21	10 × 21	23
3.3	3R3	8 × 16	21	8 × 16	26	8 × 20	31	8 × 20	33	10 × 17	34	10 × 21	36
4.7	4R7	8 × 16	31	8 × 16	33	10 × 17	38	10 × 21	44	13 × 22	45	13 × 22	46
10	100	10 × 17	60	10 × 21	66	10 × 21	72	13 × 22	77	13 × 22	80	13 × 27	82
22	220	13 × 22	121	13 × 22	121	13 × 27	126	13 × 27	132	16 × 33	137	16 × 37	143
33	330	13 × 22	154	13 × 27	167	16 × 27	178	16 × 33	186	16 × 37	192	16 × 42	201
47	470	13 × 27	198	16 × 32	214	16 × 33	241	16 × 42	253	18 × 43	339	22 × 43	402
100	101	16 × 33	345	16 × 37	368	18 × 43	391	22 × 43	402	25 × 52	424	25 × 52	448
220	221	18 × 42	586	22 × 43	609	22 × 43	632						
330	331	22 × 43	632										