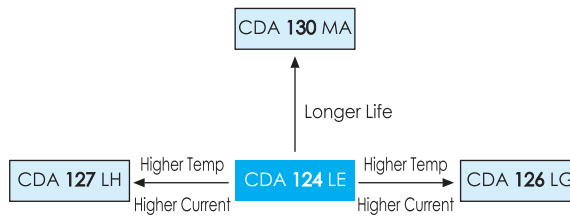


CDA 124 LE SERIES

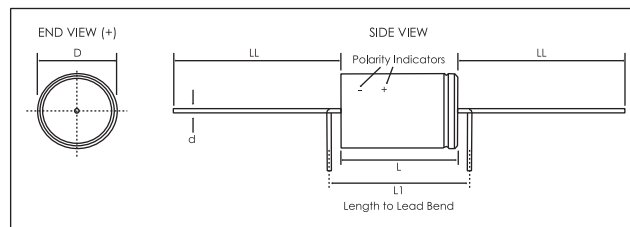


- Very long life, 27500 hours at +105°C
- Low ESR
- Low ESL
- Outstanding electrical performance



Items	Characteristics	
Operating Temperature Range (°C)	-40 ~ +125	-40 ~ +105
Voltage Range (V)	10 ~ 63	100 ~ 450
Capacitance Range (μF)	10 ~ 4700	1 ~ 470
Capacitance Tolerance (20°C,100Hz)	-10/+30%, (-10/+50%, 20% select values)	
Leakage Current (μA)	$I = 0.01CV$ ($CV \leq 1000$) $I = 0.003CV + 4.0$ ($CV > 1000$)	
	C: Nominal Capacitance(μF), V: Rated Voltage(V). Voltage applied for 5 minutes at 20 °C.	
Equivalent Series Resistance (20°C, 100Hz/100kHz)	Less than values shown in the standard ratings.	
Load Life	Ripple Current: Maximum ripple current specified in the standard ratings. Voltage: The sum of DC voltage and the peak AC voltage must not exceed the rated voltage of capacitor.	
	D(mm)	+105°C Life Time (hours, ≥100V)
	10	8000
	13	10000
	16	15000
20	22000	
Capacitance Change: Within 15% of the initial value. Equivalent Series Resistance: Not more than 200% of the initial value. Leakage Current: Not more than the initial specified value. (All specifications should be test at +20°C Life ambient temperature.)		+125°C Life Time (hours, <100V)
Shelf Life	5000 hours at +105°C or 10 years at +40 °C 0 VDC	
Vibration Test	Procedure: Displacement amplitude max.0.75mm, acceleration max.10 g, duration 3×2h, frequency range 10 ~ 500 Hz (capacitor clamped by body). Requirements: No leakage of electrolyte or other visible damage. Deviations in capacitance from initial value must not exceed $\Delta C/C < 5\%$.	
Standards	IEC 60384-4	

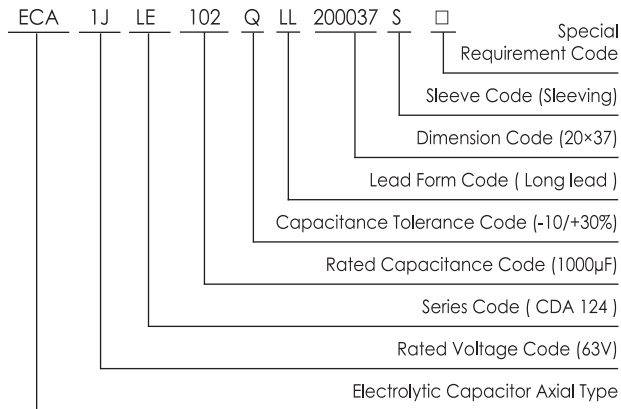
Dimensions mm



Dimension Code	D	L	L1	d	Bulk	Taped	Approximate Weight (g)
	±0.5	±1.0	Min.	±0.03	LL	LL	
100020	10	20.0	26.0	0.8	42	31	3
100029	10	29.0	35.0	0.8	42	27	4
130020	13	20.0	26.0	0.8	42	31	4
130029	13	29.0	35.0	0.8	42	27	6
130037	13	37.0	43.0	0.8	42	24	7
160029	16	29.0	35.0	0.8	42	/	8
160037	16	37.0	43.0	0.8	42	/	11
200029	20	29.0	35.0	0.8	42	/	13
200037	20	37.0	43.0	0.8	42	/	20
200046	20	46.0	52.0	0.8	42	/	24

Note: L1 is Jianghai's recommendation for minimum distance between symmetrical lead bend.

Part Number System (Ex:63V1000μF)



Ripple Current Coefficient

Frequency (Hz)	300	1K	5K	100K
Coefficient	0.57	0.80	1.00	1.04

Ratings for CDA 124 Series

U _r Code	Rated Capacitance	Max ESR		Ripple Current			ESL	Size ΦD x L	P/N
				Max	Rated				
				20°C, 100Hz	60°C, ≥5kHz	125°C, ≥5kHz			
(V)	(μF)	20°C, 100Hz (mΩ)	20°C, 100kHz (mΩ)	125°C, 100Hz (Arms)	60°C, ≥5kHz (mArms)	125°C, ≥5kHz (mArms)	(nH)	(mm)	-
10 (1A)	1000	200	140	1.035	4.6	1.7	10	16x29	ECA1ALE102Q □□160029
	1500	140	100	1.276	5.6	2.1	12	16x37	ECA1ALE152Q □□160037
	2200	90	60	1.804	8.0	2.9	15	20x37	ECA1ALE222Q □□200037
	3300	70	50	2.088	8.8	3.2	17	20x46	ECA1ALE332Q □□200046
16 (1C)	68	2400	1600	0.130	0.95	0.36	5	10x20	ECA1CLE680Q □□100020
	100	1700	1100	0.191	1.2	0.45	5	10x20	ECA1CLE101Q □□100020
	150	1100	710	0.287	1.5	0.61	6	10x29	ECA1CLE151Q □□100029
	220	390	140	0.422	3.9	1.4	6	13x20	ECA1CLE221Q □□130020
	470	250	120	0.645	3.9	1.5	6	13x20	ECA1CLE471Q □□130020
	680	130	50	1.005	7.6	2.7	10	16x29	ECA1CLE681Q □□160029
	1000	110	50	1.166	7.6	2.8	10	16x29	ECA1CLE102Q □□160029
	2200	60	40	1.782	9.3	3.4	12	16x37	ECA1CLE222Q □□160037
25 (1E)	4700	40	20	2.685	12.7	5.0	15	20x37	ECA1CLE472Q □□200037
	47	2400	1300	0.141	1.1	0.44	5	10x20	ECA1ELE470Q □□100020
	100	1200	670	0.255	1.5	0.56	6	10x29	ECA1ELE101Q □□100029
	220	460	200	0.452	3.1	1.2	6	13x20	ECA1ELE221Q □□130020
	470	200	80	0.827	6.1	2.1	10	16x29	ECA1ELE471Q □□160029
	1000	110	50	1.248	7.8	2.6	12	16x37	ECA1ELE102Q □□160037
40 (1G)	2200	60	40	1.803	9.5	3.2	15	20x37	ECA1ELE222Q □□200037
	4000	40	20	2.454	12.3	4.2	17	20x46	ECA1ELE402M □□200046
	33	2900	1300	0.153	1.1	0.39	5	10x20	ECA1GLE330Q □□100020
	68	1400	650	0.221	1.5	0.56	6	10x29	ECA1GLE680Q □□100029
	150	580	200	0.381	3.1	1.2	6	13x20	ECA1GLE151Q □□130020
	220	410	190	0.575	3.9	2.0	10	16x29	ECA1GLE221Q □□160029
	470	200	80	0.827	6.1	2.1	10	16x29	ECA1GLE471Q □□160029
	1000	110	50	1.242	7.8	2.8	12	16x37	ECA1GLE102Q □□160037
63 (1J)	2200	60	40	1.9	9.6	3.5	15	20x37	ECA1GLE222Q □□200037
	10	5900	1600	0.076	0.9	0.35	5	10x20	ECA1JLE100Q □□100020
	15	4300	1400	0.113	1.0	0.39	5	10x20	ECA1JLE150Q □□100020
	22	3400	1200	0.134	1.1	0.43	5	10x20	ECA1JLE220Q □□100020
	33	2200	780	0.158	1.4	0.53	6	10x29	ECA1JLE330Q □□100029
	47	1600	550	0.19	1.6	0.57	6	10x29	ECA1JLE470Q □□100029
	68	1100	400	0.274	2.3	0.89	8	13x29	ECA1JLE680Q □□130029
	100	730	220	0.328	3.1	1.0	6	13x20	ECA1JLE101Q □□130020
	150	460	150	0.455	3.6	1.4	8	13x29	ECA1JLE151Q □□130029
	220	290	80	0.647	6.1	2.1	10	16x29	ECA1JLE221Q □□160029
	470	170	60	0.927	7.5	2.6	12	16x37	ECA1JLE471Q □□160037
	1000	90	40	1.399	9.2	3.1	15	20x37	ECA1JLE102Q □□200037

AXIAL/CROWN

Ratings for CDA 124 Series

U _r Code	Rated Capacitance	Max ESR		Ripple Current			ESL	Size ΦD x L	P/N
				Max	Rated				
				105°C, 100Hz	60°C, ≥5kHz	105°C, ≥5kHz			
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(Arms)	(Arms)	(nH)	(mm)	-
100 (2A)	4.7	16000	2800	0.05	0.65	0.20	5	10*20	ECA2ALE4R7Q □□ 100020
	22	3000	1100	0.122	1.24	0.37	6	10*29	ECA2ALE220Q □□ 100029
	47	1500	540	0.206	1.90	0.58	8	13*29	ECA2ALE470Q □□ 130029
	100	700	260	0.354	3.20	0.98	10	16*29	ECA2ALE101Q □□ 160029
	220	500	300	0.536	3.60	1.10	12	16*37	ECA2ALE221Q □□ 160037
	470	210	120	0.904	6.30	1.90	17	20*46	ECA2ALE471Q □□ 200046
200 (2D)	10	10000	4200	0.065	0.47	0.17	6	10*29	ECA2DLE100Q □□ 100029
	15	6300	2400	0.096	0.74	0.26	8	13*29	ECA2DLE150Q □□ 130029
	22	4600	1900	0.12	0.86	0.31	8	13*29	ECA2DLE220Q □□ 130029
	33	3100	1300	0.167	1.20	0.42	10	16*29	ECA2DLE330Q □□ 160029
	47	2200	920	0.21	1.50	0.53	10	16*29	ECA2DLE470Q □□ 160029
	68	1500	660	0.294	2.00	0.71	12	20*29	ECA2DLE680Q □□ 200029
	100	1000	440	0.353	2.40	0.88	15	20*37	ECA2DLE101Q □□ 200037
150	690	300	0.446	3.10	1.10	17	20*46	ECA2DLE151Q □□ 200046	
350 (2V)	4.7	17000	7500	0.055	0.37	0.14	6	10*29	ECA2VLE4R7Q □□ 100029
	6.8	9000	4200	0.092	0.59	0.22	8	13*29	ECA2VLE6R8Q □□ 130029
	10	7600	3600	0.102	0.65	0.24	8	13*29	ECA2VLE100Q □□ 130029
	22	3300	1500	0.184	1.20	0.44	10	16*29	ECA2VLE220Q □□ 160029
	33	2300	1100	0.248	1.60	0.56	12	20*29	ECA2VLE330Q □□ 200029
	47	1500	660	0.328	2.10	0.77	15	20*37	ECA2VLE470Q □□ 200037
400 (2G)	68	1100	500	0.389	2.50	0.91	17	20*46	ECA2VLE680Q □□ 200046
	2.2	25000	12000	0.042	0.27	0.11	6	10*29	ECA2GLE2R2Q □□ 100029
	4.7	11000	5100	0.078	0.52	0.21	8	13*29	ECA2GLE4R7Q □□ 130029
	10	5900	3000	0.116	0.70	0.26	10	13*37	ECA2GLE100Q □□ 130037
	22	2700	1200	0.209	1.40	0.50	12	16*37	ECA2GLE220Q □□ 160037
	33	1600	760	0.304	1.90	0.71	15	20*37	ECA2GLE330Q □□ 200037
	47	1200	530	0.377	2.40	0.89	17	20*46	ECA2GLE470Q □□ 200046
450 (2W)	1.0	49000	20000	0.03	0.21	0.08	5	10*20	ECA2WLE010Q □□ 100020
	2.2	24000	11000	0.043	0.29	0.11	6	10*29	ECA2WLE2R2Q □□ 100029
	3.3	17000	7300	0.055	0.38	0.14	6	10*29	ECA2WLE3R3Q □□ 100029
	4.7	11000	4800	0.079	0.54	0.20	8	13*29	ECA2WLE4R7Q □□ 130029
	6.8	8300	4000	0.097	0.61	0.22	8	13*29	ECA2WLE6R8Q □□ 130029
	10	4600	1700	0.141	1.40	0.30	10	16*29	ECA2WLE100T □□ 160029
	15	3300	1400	0.185	1.60	0.49	12	20*29	ECA2WLE150Q □□ 200029
	22	2100	800	0.242	2.30	0.67	15	20*37	ECA2WLE220T □□ 200037
47	1200	530	0.377	2.40	0.89	17	20*46	ECA2WLE470Q □□ 200046	