

ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

LK

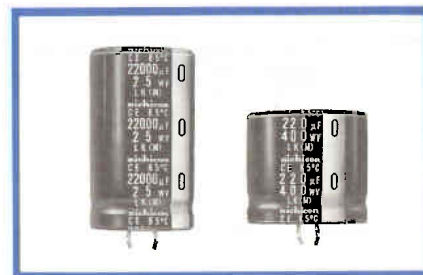
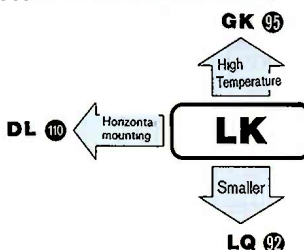
Snap-in Terminal Type, Standard series



RCJ Approved An-Solvent Feature Through 00V on y

Approved by Reliability Center for Electronic Component, Japan Certification No. RCJ-03-25C

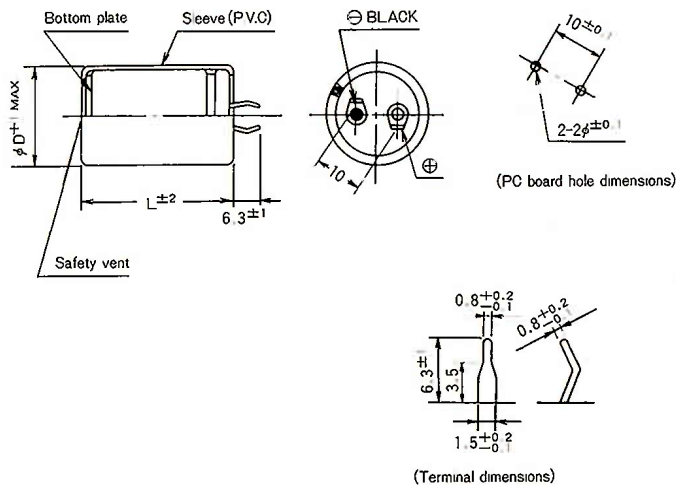
- Standard snap-in terminal series.
- Extended capacitance ranges based on the numerical values in E12 series under JIS.



Specifications

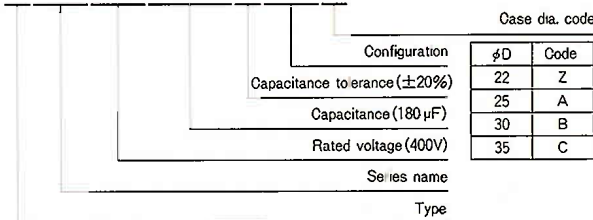
Item	Performance Characteristics												
Operating Temperature Range	-40~+85°C (16~250V)	-25~+85°C (400~450V)											
Voltage Range	16~450V												
Capacitance Range	47~33000μF												
Capacitance Tolerance	±20% (120Hz, 20°C)												
Leakage Current	$I \leq 3\sqrt{CV}$ (μA) (After 5 minutes' application of rated voltage) [C: Capacitance (μF), V: Voltage (V)]												
tan δ	Measurement frequency: 120Hz, Temperature: 20°C												
	Rated voltage (V)	16	25	35	50	63	80	100	160	200	250	400	450
	tan δ (MAX.)	0.5	0.4	0.35	0.3	0.25	0.2	0.2	0.15	0.10	0.10	0.20	0.20
Stability at Low Temperature	Measurement frequency: 120Hz												
	Rated voltage (V)	16~100			160~250			400~450					
	Impedance ratio	Z-25°C/Z+20°C			4			3			8		
	ZT/Z20 (MAX.)	Z-40°C/Z+20°C			15			12			-		
Load Life	After an application of rated voltage (maximum value of DC voltage overlapped by an allowable ripple current) for 2000 hours at 85°C, capacitors meet the characteristics requirements listed at right.												
	Leakage current	Initial specified value or less											
	Capacitance change	Within ±20% of initial value											
Shelf Life	After leaving capacitors under no load at 85°C for 1000 hours, they meet the requirements listed at right.												
	Leakage current	Initial specified value or less											
	Capacitance change	Within ±15% of initial value											
	tan δ	150% or less of initial specified value											
Marking	Printed with white color letter on black sleeve.												
Applicable Standards	JIS C-5141 and JIS C-5102												

Drawing



Type numbering system (Example: 400V 180μF)

1 2 3 4 5 6 7 8 9 10 11 12
L L K 2 G 1 8 1 M H S A



ALUMINUM ELECTROLYTIC CAPACITORS



■ Dimensions

DXL (mm)

Cap. (μF)	V (Code) Code	φD	16(1C)				25(1E)				35(1V)				50(1H)			
			22	25	30	35	22	25	30	35	22	25	30	35	22	25	30	35
2200	222														22×25			
															1.85			
2700	272														22×30			
															2.10			
3300	332														22×25	25×25		
															2.20	2.35		
3900	392														22×30	25×30		
															2.25	2.50		
4700	472														22×25	25×25	30×25	
															1.90	2.40	2.80	
5600	562														22×30	25×30	30×30	
															2.25	2.75	3.30	
6800	682														22×25	25×35	30×25	
															2.50	2.95	3.80	
8200	822														22×30	25×40	30×30	
															2.65	3.10	4.30	
10000	103														22×30	25×45	30×35	
															2.85	3.40	4.00	
12000	123														22×35	25×50	30×40	
															3.25	3.90	4.45	
15000	153														22×40	25×45	30×35	
															3.70	4.45	5.00	
18000	183														22×50	25×50	30×40	
															4.35	5.00	5.50	
22000	223														25×45	30×45	35×30	
															4.80	5.50	6.25	
27000	273														30×40	35×40	35×50	
															5.20	5.75	6.50	
33000	333														30×45	35×40		
															5.80	5.90		

Cap. (μF)	V (Code) Code	φD	63(1J)				80(1K)				100(2A)							
			22	25	30	35	22	25	30	35	22	25	30	35				
820	821														22×25			
															1.20			
1000	102														22×30	25×25		
															1.50	1.50		
1200	122														22×25	25×30		
															1.30	1.75		
1500	152														22×30	25×30	30×25	
															1.80	1.90	1.95	
1800	182														22×25	25×35	30×30	
															1.70	2.20	2.30	
2200	222														22×30	25×40	30×30	
															2.30	2.60	2.55	
2700	272														22×35	25×45	30×35	
															2.40	2.85	2.95	
3300	332														22×40	25×45	30×40	
															2.75	3.45	3.45	
3900	392														22×45	25×45	30×35	
															3.00	3.85	3.75	
4700	472														22×50	25×50	30×40	
															3.30	3.70	4.30	
5600	562														25×45	30×45	35×35	
															3.75	4.40	4.35	
6800	682														30×40	35×40		
															4.20	4.80		
8200	822														30×45	35×45		
															4.70	5.35		
10000	103														35×40			
															5.20			
12000	123														35×50			
															6.10			

Allowable Ripple(A) at 85°C 120Hz

ALUMINUM ELECTROLYTIC CAPACITORS

LK series

■ Dimensions

DXL(mm)

Cap. (μF)	V (Code) Code	φD	160(2C)				200(2D)				250(2E)			
			22	25	30	35	22	25	30	35	22	25	30	35
180	181										22×25			
											0.95			
220	221					22×25				22×30	25×25			
						1.10				1.15	1.15			
270	271					22×30				22×35	25×30			
						1.25				1.25	1.25			
330	331	22×25				22×30	25×25			22×40	25×30	30×25		
		1.30				1.40	1.40			1.45	1.45	1.45		
390	391	22×30	25×25			22×35	25×30			22×45	25×35	30×30		
		1.50	1.55			1.60	1.60			1.70	1.70	1.70		
470	471	22×35	25×30			22×40	25×35	30×25		22×50	25×40	30×35	35×25	
		1.75	1.75			1.80	1.80	1.75		1.90	1.90	1.90	1.90	
560	561	22×35	25×30	30×25		22×45	25×35	30×30			25×45	30×35	35×30	
		1.90	1.90	1.95		2.00	2.00	2.05			2.15	2.15	2.15	
680	681	22×40	25×35	30×30			25×40	30×35	35×25			30×40	35×30	
		2.15	2.20	2.20			2.25	2.25	2.30			2.40	2.35	
820	821	22×50	25×40	30×30	35×25		25×50	30×40	35×30			30×45	35×35	
		2.45	2.45	2.45	2.50		2.55	2.60	2.50			2.75	2.75	
1000	102		25×45	30×35	35×30			30×45	35×35				35×40	
			2.80	2.80	2.85			2.95	2.90				3.00	
1200	122		25×50	30×40	35×35			30×50	35×40				35×50	
			3.10	3.20	3.25			3.40	3.40				3.50	
1500	152			30×45	35×40				35×45					
				3.70	3.75				3.80					
1800	182				35×40				35×50					
					4.00				4.15					
2200	222				35×50									
					4.50									

Cap. (μF)	V (Code) Code	φD	400(2G)				450(2W)						
			22	25	30	35	22	25	30	35			
47	470						22×25						
							0.49						
56	560						22×30						
							0.57						
68	680	22×25					22×30	25×25					
		0.58					0.63	0.63					
82	820	22×30					22×35	25×30					
		0.60					0.74	0.75					
100	101	22×30	25×25				22×40	25×35	30×25				
		0.77	0.77				0.88	0.89	0.86				
120	121	22×35	25×30				22×45	25×40	30×30	35×25			
		0.86	0.86				0.96	0.98	0.96	0.99			
150	151	22×40	25×30	30×25			25×45	30×35	35×30				
		0.97	0.92	0.96			1.10	1.10	1.13				
180	181	22×45	25×35	30×30	35×25		25×50	30×40	35×30				
		1.10	1.06	1.11	1.13		1.24	1.18	1.22				
220	221	22×50	25×40	30×35	35×30			30×45	35×35				
		1.25	1.22	1.28	1.32			1.42	1.40				
270	271		25×50	30×40	35×30			30×50	35×40				
			1.39	1.47	1.46			1.62	1.61				
330	331			30×45	35×35				35×45				
				1.68	1.70				1.83				
390	391			30×50	35×40				35×50				
				1.95	1.93				2.10				
470	471				35×45								
					2.23								
560	561				35×50								
					2.54								

Allowable Ripple(A) at 85°C 120Hz

● Frequency coefficient of allowable ripple current

Coef.	Frequency (Hz)					
	50	60	120	1 k	10k~	
	16~100V	0.88	0.90	1.00	1.15	1.15
160~250V	0.85	0.88	1.00	1.15	1.20	
400~450V	0.88	0.90	1.00	1.10	1.15	

● Allowable ripple current vs. Ambient temperature

Ambient temp. (C)	~+45	+60	+70	+85
Coefficient	1.48	1.42	1.30	1.00