

K4L Large Capacitance Miniature Aluminum Electrolytic Capacitors

PC Board Plug-in 4 Terminals Ultra miniaturized Capacitors, Series K4L.

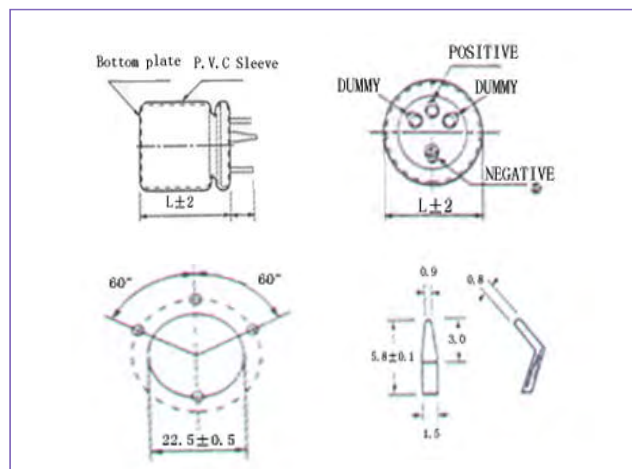
Increased in allowed ripple current by 5 to 40%

20mm-tall products for every diameter of $\Phi 35$ to $\Phi 40$ are now offered in series

As many as 4 case sizes available for the same rating

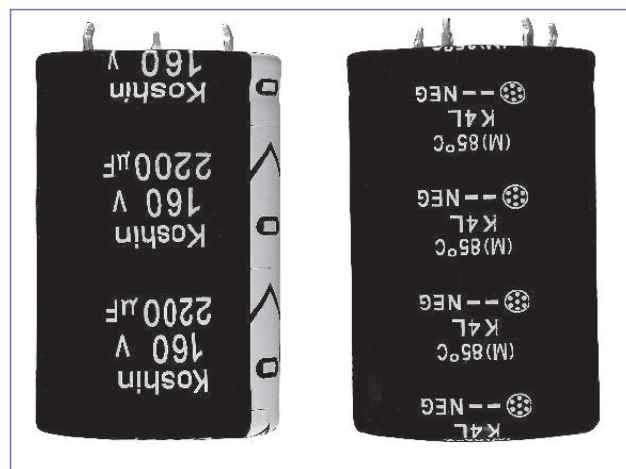
Outline Drawing

Unit: mm



Photo

ROSH



Marking color: black print on yellow sleeve

Specifications

No.	Item	Performance											
1	Temperature range(°C)	-40 to +85 (16V ~ 100V)					-25 to +85 (160V ~ 450V)						
2	Leakage current(μA)	Less than 0.02CV or 3mA whichever is smaller (after five minutes) C: Rated Capacitance(μF); V: Rated voltage(V) 20°C											
3	Capacitance tolerance(%)	±20 (20°C, 120Hz)											
4	Tangent of the loss angle (Tan δ)	Rated voltage (V)	16	25	35	50	63	80	100	160-250	400-450	20°C 120Hz	
		Tan δ (max)	0.35	0.30	0.30	0.25	0.25	0.20	0.20	0.15	0.15		
5	Low temperature characteristics	Rated voltage (V)	16	25	35	50	63	80	100	160-250	400-450	120Hz	
		Impedance ratio (max)	$Z_{(-25^\circ\text{C})}/Z_{(+20^\circ\text{C})}$		5	3	3	3	3	3	7		15
			Test time		2000hours								
7	Endurance (85°C) (Applied ripple current)	Leakage current		The initial specified value or less									
		Percentage of capacitance change		Within ±20% of initial value									
		Tangent of the loss angle		200% or less of the initial specified value									
		Test time		1000hours									
8	Max Storage temp (85°C)	Leakage current		The initial specified value or less									
		Percentage of capacitance change		Within ±20% of initial value									
		Tangent of the loss angle		200% or less of the initial specified value									
		Test time		1000hours									
8	Applicable standards	JIS-C-5102 and JIS-C- 5141											

Coefficient of Frequency for Ripple Current

Capacitance(μF)	Frequency (Hz)				
	50~60	120	1K	10K	50K-100K
CAP ≤ 1000	0.80	1.00	1.25	1.35	1.38
1000 < CAP	0.80	1.00	1.17	1.25	1.28

Coefficient of Temperature for Ripple Current

Temperature(°C)	45	60	70	85
Coefficient	1.55	1.30	1.20	1.00

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Dimension: Φ DXL(mm)

Ripple Current: A/rms at 120Hz, 85°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC Contents μ F	16V				25V				35V				50V			
	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A
15000													35X50	4.53		
18000													35X60	5.07	40X50	5.07
22000									35X50	4.98			35X80	5.74	40X60	5.74
27000									35X60	5.82					40X60	6.16
33000					35X50	5.76			35X80	6.00	40X60	6.38				
39000					35X60	6.24	40X50	6.24	35X80	6.91	40X60	7.00				
47000	35X30	5.88			35X80	7.08	40X60	7.08			40X80	7.52				
56000	35X60	6.48	40X50	6.48			40X80	7.40								
68000	35X80	7.20	40X60	7.20			40X80	8.55								
82000			40X80	8.16												

V.DC Contents μ F	63V				80V				100V				160V			
	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A
1800													35X50	2.46		
2200													35X60	2.77	40X50	2.77
2700													35X80	3.00	40X60	3.00
3300															40X80	3.26
4700					35X50	3.20										
5600					35X50	3.62			35X60	3.64	40X50	3.64				
6800					35X60	3.92	40X50	3.92	35X80	3.94	40X60	3.94				
8200					35X80	4.42	40X60	4.42			40X80	4.47				
10000							40X80	5.10								
12000	35X60	4.65	40X50	5.00			40X80	5.58								
15000	35X80	4.90	40X60	5.20												
18000	35X80	5.86	40X80	6.12												

V.DC Contents μ F	200V				250V				400V				450V			
	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A	Φ DXL	A
330													35X50	1.16		
390													35X60	1.22		
470									35X60	1.36			35X80	1.38	40X50	1.38
560									35X80	1.44	40X50	1.44	35X80	1.50	40X60	1.50
680									35X80	1.59	40X60	1.59			40X80	1.64
820					35X50	1.18					40X80	1.78				
1000	35X50	2.02			35X60	2.10										
1200	35X50	2.24			35X60	2.24	40X50	2.24								
1500	35X60	2.44			35X80	2.37	40X60	2.37								
1800	35X80	2.65	40X60	2.65			40X80	2.79								
2700			40X80	3.03												