

CD13L SERIES



ALUMINUM ELECTROLYTIC CAPACITORS

- Load life of 5000 hours at 85°C
- High ripple current
- Used for Computers Communication powers, Hi-ripple circuit of electric vehicle, electric train, general-purpose inverter etc.



SPECIFICATIONS

Item	Characteristics								
Operating Temperature Range(°C)	-40~+85								
Rated Voltage Range (V)	350~450								
Nominal capacitance range (μF)	1000~18000								
Capacitance Tolerance(20°C,120Hz)	±20%								
Leakage current (μA)	$I \leq 0.01CV$ or 5mA, whichever is smaller. (at 20°C, after 5 minutes) C: Nominal capacitance (μF) V: Rated voltage (V)								
Dissipation Factor(20°C,120Hz)	$\tan\delta \leq 0.15$								
Load Life(+85°C)	<table border="1"> <tr> <td>Time</td> <td>5000hours</td> </tr> <tr> <td>Leakage current</td> <td>Not more than the specified value</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value</td> </tr> </table>	Time	5000hours	Leakage current	Not more than the specified value	Capacitance Change	Within ±20% of the initial value	Dissipation Factor	Not more than 200% of the specified value
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	Leakage current	Not more than the specified value							
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Shelf Life(+85°C)	<table border="1"> <tr> <td>Time</td> <td>1000hours</td> </tr> <tr> <td>Leakage current</td> <td>Not more than the specified value</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value</td> </tr> </table>	Time	1000hours	Leakage current	Not more than the specified value	Capacitance Change	Within ±20% of the initial value	Dissipation Factor	Not more than 200% of the specified value
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After Test: Rated voltage to be applied for 60 minutes, 24 to 48 hours before measurement									

DIMENSIONS

MM

MULTIPLIER FOR RIPPLE CURRENT

Lead spacing and diameter

ΦD	51	64	76	89
F	22	28	32	32

Frequency coefficient

Frequency(Hz)	50,60	120	300	1K	≥10K
Factor	0.7	1.0	1.10	1.30	1.40

Temperature coefficient

Temperature(°C)	+40	+60	+85
Factor	1.89	1.67	1.0

■ STANDARD RATINGS

WV(V)	350		400		450	
Cap(μF)	ΦDxL(mm)	Ripple (A)	ΦDxL(mm)	Ripple (A)	ΦDxL(mm)	Ripple (A)
1000	-	-	51X83	5.0	51X83	5.0
1200	51X83	5.5	51X83	5.5	51X96	6.0
1500	51X83	6.1	51X96	6.7	51X115	7.2
1800	51X96	7.4	51X96	7.4	51X130	8.3
2200	51X96	8.2	51X130	9.2	64X96	9.0
2700	51X130	10.2	64X96	9.9	64X115	10.7
3300	51X130	11.3	64X115	11.8	64X130	12.4
3900	64X115	12.8	64X130	13.5	64X155	14.5
					77X115	13.6
4700	64X130	14.8	64X155	15.9	64X196	17.5
			77X115	14.9	77X130	15.6
5600	64X155	17.3	64X196	19.1	77X155	18.3
	77X115	16.3	77X130	17.0		
6800	64X196	21.1	77X155	20.2	90X157	21.4
	77X130	18.8				
8200	77X155	22.1	90X157	23.5	90X157	23.5
10000	90X157	25.9	90X157	25.9	90X196	28.3
12000	90X157	28.4	90X196	31.0	90X236	33.6
15000	90X196	34.6	90X236	37.5	-	-
18000	90X236	41.4	-	-	-	-

■ Ripple Current: 85°C, 100Hz or 120Hz

The specific capacitance and case size are available on request.

■ TYPICAL CURVES

