

CD13H (MN型)

- 105℃, 寿命2000小时 Load life of 2000 hours at 105℃
- 尺寸可以选择 Size may be selected
- 耐高纹波电流 High ripple current
- 用于计算机、通信电源和逆变器 Used for computers, communication powers, Hi-ripple circuit of electric vehicle, electric train, general-purpose inverter



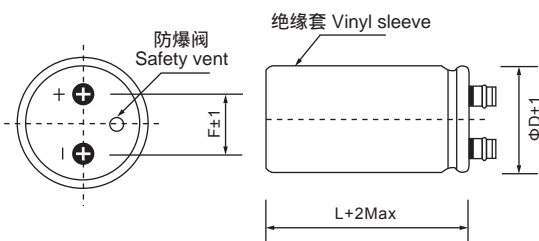
主要技术性能 Specifications

项目 Item	特性 Characteristics	
额定电压范围 Rated voltage range(V)	10 ~ 100	160 ~ 400
使用温度范围 Operating temperature range()	-40 ~ +105	-25 ~ +105
标称容量允许偏差 Capacitance tolerance (25 ,120Hz)	± 20%	
漏电流 Leakage current(µA)	0.02CV或5mA(25 , 5分钟读数)取较小者 0.02CV or 5mA, Whichever is smaller.(at25 , after 5 minutes) Where , C:Nominal Capacitance(µF) V: Rated Voltage(V)	
损耗角正切值 Dissipation factor(25 ,120Hz)	Tan shall not exceed the values shown in the table of STANDARD RATINGS	
温度特性 Temperature stability (120Hz)	Capacitance change 10-100VDC:Capacitance at -40 shall not be less than 60% of the 25 value 160-400VDC:Capacitance at -25 shall not be less than 70% of the 25 value	
耐久性 Load life (+ 105)	Time	1000 hours
	漏电流 Leakage Current	不大于规定值 Not more than the specified value
	电容量变化率 Capacitance Change	初始测量值以内 Within ±20% of the initial value
	损耗角正切 Dissipation Factor	不大于规定值的200% Not more than 200% of the specified value
高温贮存 Shelf life (+ 105)	Time	500 hours
	漏电流 Leakage Current	不大于规定值 Not more than the specified value
	电容量变化率 Capacitance Change	初始测量值以内 Within ±20% of the initial value
	损耗角正切 Dissipation Factor	不大于规定值的200% Not more than 200% of the specified value

加电压60分钟后,恢复24-48小时后测量
*After test:Ur to be applied for 60 minutes, 24 to 48 hours before measurement.

外形图及尺寸 Case size table

单位Unit:mm



ΦD	35	51	63.5	76	89
F	13	22.0	28	32.0	32.0

纹波电流修正系数 Multiplier for ripple current

频率系数 Frequency coefficient

频率 Frequency(Hz)	50,60	120	300	1k	10k
系数Factor	0.8	1.0	1.10	1.20	1.50

温度系数 Temperature coefficient

温度 Temperature()	+70	+85	+105
系数 Factor	2.1	1.7	1.0

D:	A5	A6	A8	A10	A12	C8	C10	C12
L:	35	35	35	35	35	50	50	35
D:	D10	D12	E10	E12	E13	E14	F14	
L:	63.5	63.5	76	76	76	76	89	

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铝电解电容器 Aluminum Electrolytic Capacitors

额定值标准 Standard rating

Cap(μF)\VV(V)	10			16			25			35			50			63			80			
2200																			A5	2.4	0.15	
2700																		A5	2.7	0.15		
3300																	A5	3.0	0.15			
3900														A5	2.8	0.20	A5	2.8	0.20	A6	3.4	0.15
4700														A5	3.1	0.20	A5	3.1	0.20	A6	3.7	0.15
5600														A5	3.3	0.20	A6	3.5	0.20	A8	4.5	0.15
6800														A5	3.3	0.25	A6	3.9	0.20	A8	4.9	0.15
8200											A5	3.3	0.30	A6	3.8	0.25	A8	4.7	0.20	A10	5.1	0.20
10000											A5	3.6	0.30	A8	4.6	0.25	A8	4.7	0.25	A12	6.1	0.20
12000								A5	3.7	0.35	A6	4.2	0.30	A8	5.1	0.25	A10	5.5	0.25	C8	6.7	0.20
15000								A5	4.1	0.35	A6	4.7	0.30	A8	5.7	0.25	A12	6.6	0.25	C10	8.3	0.20
18000				A5	4.2	0.40	A6	4.8	0.35	A8	5.7	0.30	A10	6.7	0.25	C8	7.4	0.25	C12	9.9	0.20	
22000				A5	4.7	0.40	A6	5.3	0.35	A8	6.3	0.30	A12	8.1	0.25	C10	9.0	0.25	C12	11.0	0.20	
27000	A5	4.9	0.45	A6	5.5	0.40	A8	6.4	0.35	A10	7.5	0.30	C8	9.1	0.25	C12	10.9	0.25	D10	11.4	0.25	
33000	A5	5.1	0.50	A6	5.7	0.45	A8	6.7	0.40	A12	9.0	0.30	C10	11.1	0.25	C12	12.0	0.25	E10	13.9	0.25	
39000	A6	5.9	0.50	A8	6.8	0.45	A10	7.8	0.40	C8	9.2	0.35	C12	13.1	0.25	D10	12.5	0.30	E10	13.9	0.30	
47000	A8	7.1	0.50	A8	7.1	0.50	A12	9.3	0.40	C10	11.2	0.35	C12	13.9	0.30	D12	14.9	0.30	E12	16.5	0.30	
56000	A8	7.1	0.60	A10	8.4	0.50	C8	9.7	0.45	C10	11.4	0.40	D10	13.9	0.35	D12	16.3	0.30	E12	18.1	0.30	
68000	A10	8.5	0.60	A10	8.8	0.55	C10	11.2	0.45	C12	13.6	0.40	D12	16.6	0.35	E12	18.4	0.35	E14	19.7	0.35	
82000	A10	8.9	0.65	C8	10.7	0.55	C10	11.2	0.50	D10	14.8	0.45	E12	18.9	0.40	E14	20.0	0.40	F14	22.1	0.40	
100000	A12	10.7	0.65	C8	10.8	0.65	D10	14.8	0.50	D12	17.6	0.45	E12	19.5	0.45	E14	20.0	0.50				
120000	C8	11.0	0.75	C10	13.1	0.65	D10	14.9	0.65	D12	17.6	0.55	E12	19.5	0.55	F14	21.8	0.60				
150000	C10	13.2	0.80	C12	15.3	0.70	D12	17.9	0.65	E12	19.8	0.65	F14	23.9	0.60							
180000	C12	15.7	0.80	C12	15.7	0.80	D12	17.9	0.80	E12	19.8	0.80	F14	23.9	0.75							
220000	C12	16.8	0.85	D12	19.2	0.85	E12	21.3	0.85	E14	23.4	0.80										
270000	D12	19.6	1.00	D12	19.6	1.00	E12	21.7	1.00	F14	25.5	1.00										
330000	D12	19.7	1.20	E12	21.1	1.30	E14	23.4	1.20													
390000	E12	21.3	1.50	E12	21.3	1.50	F14	24.9	1.50													
470000	E12	21.4	1.80	E14	24.2	1.60																
560000	E14	23.6	2.00	F14	28.1	2.00																
680000	F14	26.0	2.40	F14	28.5	2.40																

Cap(μF)\VV(V)	100			160			200			250			315			350			400			
180													A5	0.8	0.10	A5	0.8	0.10	A5	0.8	0.10	
220													A5	0.9	0.10	A5	0.9	0.10	A5	0.9	0.10	
270										A5	0.8	0.15	A5	1.0	0.10	A5	1.0	0.10	A5	1.0	0.10	
330								A5	0.9	0.15	A5	0.9	0.15	A5	1.1	0.10	A5	1.1	0.10	A6	1.2	0.10
390								A5	1.0	0.15	A5	1.0	0.15	A5	1.2	0.10	A6	1.3	0.10	A6	1.3	0.10
470								A5	1.1	0.15	A5	1.1	0.15	A6	1.4	0.10	A6	1.4	0.10	A8	1.4	0.10
560				A5	1.2	0.15	A5	1.2	0.15	A5	1.2	0.15	A6	1.5	0.10	A8	1.6	0.10	A8	1.4	0.15	
680				A5	1.3	0.15	A5	1.3	0.15	A6	1.4	0.15	A8	1.7	0.10	A8	1.6	0.15	A10	1.7	0.15	
820				A5	1.4	0.15	A5	1.4	0.15	A8	1.6	0.15	A8	1.7	0.15	A10	1.8	0.15	A12	2.0	0.15	
1000				A5	1.6	0.15	A6	1.7	0.15	A8	1.6	0.20	A10	2.0	0.15	A12	2.2	0.15	C8	2.2	0.15	
1200				A6	1.9	0.15	A6	1.9	0.15	A8	1.8	0.20	A12	2.4	0.15	C8	2.4	0.15	C10	2.7	0.15	
1500				A6	2.1	0.15	A8	2.3	0.15	A10	2.1	0.20	C8	2.7	0.15	C10	3.0	0.15	C12	3.3	0.15	
1800	A5	2.7	0.10	A8	2.5	0.15	A8	2.5	0.15	A12	2.5	0.20	C10	3.3	0.15	C12	3.6	0.15			0.15	
2200	A5	3.0	0.10	A8	2.8	0.15	A10	3.0	0.15	C8	2.9	0.20	C12	4.0	0.15	C12	4.0	0.15	D10	4.2	0.15	
2700	A6	3.5	0.10	A10	3.3	0.15	A12	3.6	0.15	C10	3.5	0.20	C12	4.4	0.15	D10	4.6	0.15				
3300	A8	4.2	0.10	A12	3.8	0.15	C8	4.1	0.15	C12	4.2	0.20	D10	5.1	0.15				D12	5.5	0.15	
3900	A8	4.2	0.12	C8	3.8	0.20	C10	4.9	0.15	C12	4.6	0.20	D12	6.0	0.15	E12	6.7	0.15				
4700	A10	5.0	0.12	C10	4.6	0.20	D10	5.3	0.20	D12	5.7	0.20	E10	6.8	0.15				E13	7.6	0.15	
5600	A10	5.4	0.12	C10	5.1	0.20	D10	5.8	0.20	D12	6.3	0.20	E12	8.0	0.15	E13	8.3	0.15	F14	9.4	0.15	
6800	A12	5.8	0.15	C12	6.1	0.20	D12	6.9	0.20	E12	7.7	0.20	E13	9.2	0.15	E14	9.5	0.15	F14	11.4	0.15	
8200	C8	6.4	0.15	C10	7.0	0.20	D12	7.6	0.20	E12	8.4	0.20	F14	11.4	0.15	F14	11.4	0.15				
10000	C10	7.8	0.15	D12	8.4	0.20	E12	9.3	0.20	E14	10.0	0.20	F14	12.6	0.15							
12000	C12	9.3	0.15	E10	9.4	0.20	E14	10.2	0.20	F14	11.9	0.20										
15000	C12	10.4	0.15	E12	11.4	0.20	E14	12.2	0.20													
18000	D10	10.4	0.20	E14	13.4	0.20	F14	13.1	0.25													
22000	D12	12.5	0.20	F14	14.5	0.25																
27000	E12	13.7	0.25	F14	16.0	0.25																
33000	E12	15.2	0.25																			
39000	E14	16.1	0.30																			
47000	F14	19.3	0.30																			
56000	F14	21.1	0.30																			

tg (25 120Hz)
额定纹波电流 Rated Ripple Current (Arms) 105 120Hz
尺寸代码 Case code

CD13H (MN型)

铝电解电容器 Aluminum Electrolytic Capacitors

频率特性曲线 Frequency characteristics curve

