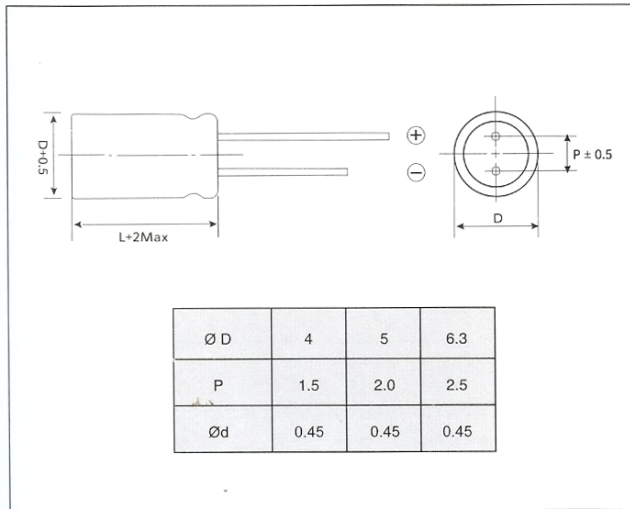




DIMENSIONS(mm) 外形尺寸



MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

Freq(Hz)	50.60	120	1K	10K-100K
Rated voltage(V)				
6.3-16	0.80	1.0	1.3	1.5
25-35	0.80	1.0	1.2	1.2
50	0.80	1.0	1.15	1.2

Temperature coefficient 温度因子

Temperature(°C)	+70	+85	+105
Factor	2.10	1.80	1

STANDARD RATINGS 额定技术参数

Cap (µF)	Item 项目	4		6.3		10		16		25		35		50			
		Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流		
		ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)	mArms		
0.1		-	-	-	-	-	-	-	-	-	-	-	-	3x5	1		
		-	-	-	-	-	-	-	-	-	-	-	-	4x5	1		
0.22		-	-	-	-	-	-	-	-	-	-	-	-	3x5	2		
		-	-	-	-	-	-	-	-	-	-	-	-	4x5	2		
0.33		-	-	-	-	-	-	-	-	-	-	-	-	3x5	2.8		
		-	-	-	-	-	-	-	-	-	-	-	-	4x5	2.8		
0.47		-	-	-	-	-	-	-	-	-	-	-	-	3x5	4		
		-	-	-	-	-	-	-	-	-	-	-	-	4x5	4		
1		-	-	-	-	-	-	-	-	-	-	-	-	3x5	8		
		-	-	-	-	-	-	-	-	-	-	-	-	4x5	8.4		
2.2		-	-	-	-	-	-	-	-	-	-	3x5	8.4	4x5	13		
		-	-	-	-	-	-	-	-	-	-	4x5	8.4				
3.3		-	-	-	-	-	-	-	-	3x5	13	4x5	17	4x5	14		
		-	-	-	-	-	-	-	-	4x5	15						
4.7		-	-	-	-	-	-	3x5	14	4x5	15	4x5	17	4x5	18		
		-	-	-	-	-	-	4x5	15					5x5	20		
10		-	-	3x5	17	4x5	22	4x5	23	4x5	25	5x5	25	5x5	25	6.3x5	28
		-	-	4x5	20					5x5	25						
22		3x5	21	3x5	25	3x5	25	4x5	30	5x5	40	6.3x5	48	8x5	75		
		4x5	23	4x5	30	4x5	30			5x5	44					6.3x5	50
		5x5	31	5x5	31	5x5	44			6.3x5	50						
33		4x5	35	5x5	35	5x5	40	6.3x5	68	6.3x5	68	8x5	80	8x5	90		
47		4x5	30	5x5	45	6.3x5	60	6.3x5	70	8x5	95	8x5	100	-	-		
100		5x5	60	6.3x5	85	6.3x5	95	8x5	125	8x5	135	-	-	-	-		
220		6.3x5	105	8x5	145	8x5	155	8x5	165	-	-	-	-	-	-		
330		8x5	150	8x5	175	-	-	-	-	-	-	-	-	-	-		
470		8x5	180	-	-	-	-	-	-	-	-	-	-	-	-		



CD11XH series

Wide temperature range of $-40\sim+105^{\circ}\text{C}$, with 7mm height
 7mm 高度 宽温度范围 $-40\sim+105^{\circ}\text{C}$ 。

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性																				
Operating Temperature Range($^{\circ}\text{C}$) 工作温度范围	$-40\sim+105$																				
Capacitance Tolerance(20°C , 120Hz) 容量偏差	$\pm 20\%$																				
Leakage Current 漏电流	0.01CV or $3\mu\text{A}$ whichever is greater. (at 20°C , after 2 minutes) C: Nominal Capacitance (μF) V: Rated Voltage (V) 0.01CV 或 $3\mu\text{A}$. 取最大值。(在 20°C , 加电压测试 2 分钟测试) C: 标准容量 (μF) V: 额定工作电压 (V)																				
Dissipation Factor(20°C , 120Hz) 损耗角正切值	<table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Tan δ 损耗角正切值</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table>	Rated Voltage(V) 工作电压	6.3	10	16	25	35	50	Tan δ 损耗角正切值	0.22	0.19	0.16	0.14	0.12	0.10						
Rated Voltage(V) 工作电压	6.3	10	16	25	35	50															
Tan δ 损耗角正切值	0.22	0.19	0.16	0.14	0.12	0.10															
Temperature Stability(120Hz) 温度特性	<table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance Ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td colspan="2">3</td> <td colspan="3">2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>8</td> <td>5</td> <td>4</td> <td colspan="2">3</td> </tr> </tbody> </table>	Rated Voltage(V) 工作电压	6.3	10	16	25	35	50	Impedance Ratio 阻抗比	Z- 25°C /Z+ 20°C	3		2			Z- 40°C /Z+ 20°C	8	5	4	3	
Rated Voltage(V) 工作电压	6.3	10	16	25	35	50															
Impedance Ratio 阻抗比	Z- 25°C /Z+ 20°C	3		2																	
	Z- 40°C /Z+ 20°C	8	5	4	3																
Load Life(+ 105°C) 耐久性	<table border="1"> <tbody> <tr> <td>Time 时间</td> <td>1000 hours</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within $\pm 20\%$ of the initial value. 在初始值的 $\pm 20\%$ 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200% of the specified value 不大于规定值的 200%</td> </tr> </tbody> </table>	Time 时间	1000 hours	Leakage current 漏电流	Not more than the specified value 不大于规定值	Capacitance change 容量变化	Within $\pm 20\%$ of the initial value. 在初始值的 $\pm 20\%$ 范围内	Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%												
Time 时间	1000 hours																				
Leakage current 漏电流	Not more than the specified value 不大于规定值																				
Capacitance change 容量变化	Within $\pm 20\%$ of the initial value. 在初始值的 $\pm 20\%$ 范围内																				
Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%																				
Shelf Life 高温贮存	After leaving capacitors under no load at 105°C for 500 hours, capacitors shall meet the specified value for load life Characteristics listed above 电容器在 105°C 贮存 500 小时后, 测试其性能应满足上表耐久性试验参数要求																				



DIMENSIONS (mm) 外形尺寸

Ø D	4	5	6.3
P	1.5	2.0	2.5
Ød	0.45	0.45	0.45

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

Rated voltage(V)	Freq(Hz)			
	50.60	120	1K	10K-100K
6.3-16	0.68	0.72	0.92	1.0
25-35	0.48	0.63	0.80	1.0
50	0.45	0.50	0.70	1.0

Temperature coefficient 温度因子

Temperature(°C)	+70	+80	-105
Factor	2.10	1.80	1

STANDARD RATINGS 额定技术参数

WV (v)	6.3		10		16		25		35		50	
	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流
	Cap (µF)	ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)	mArms	ØDxL (mm)
0.1	-	-	-	-	-	-	-	-	-	-	4x7	1.0
0.22	-	-	-	-	-	-	-	-	-	-	4x7	2.3
0.33	-	-	-	-	-	-	-	-	-	-	4x7	3.5
0.47	-	-	-	-	-	-	-	-	-	-	4x7	5
1	-	-	-	-	-	-	-	-	-	-	4x7	10
2.2	-	-	-	-	-	-	-	-	-	-	4x7	19
3.3	-	-	-	-	-	-	4x7	21	4x7	23	4x7	24
4.7	-	-	-	-	-	-	4x7	25	4x7	25	5x7	29
10	-	-	-	-	4x7	29	5x7	33	5x7	36	6.3x7	44
22	4x7	34	5x7	38	5x7	44	6.3x7	51	6.3x7	60	6.3x7	60
33	5x7	42	5x7	47	6.3x7	60	6.3x7	65	-	-	-	-
47	5x7	50	6.3x7	65	6.3x7	70	-	-	-	-	-	-
100	6.3x7	77	6.3x7	87	-	-	-	-	-	-	-	-

Ripple Current 纹波电流: (mA,105°C/120Hz)



CD110 series

2000 hours standard series for general purposes
85°C 2000小时 通用型标准品

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性	
Operating Temperature Range(°C) 工作温度范围	-40~+85	
Capacitance Tolerance(20°C,120Hz) 容量偏差	± 20%	
Leakage Current 漏电流	Rated Voltage(V) 工作电压	6.3-100 160-450
	Leakage current 漏电流	0.01CV or 3µA whichever is greater.(at 20°C,after 1 minutes) 0.01CV 或 3µA. 取最大值。(at 20°C,加电压测试 1 分钟)
C:Nominal capacitance 标称容量 (µF), V:Rated voltage 额定电压 (V)		
Dissipation Factor(20°C,120Hz) 损耗角正切值	Rated Voltage(V) 工作电压	6.3 10 16 25 35 50 63 100 160 200 250 350 400 450
	Tan δ 损耗角正切值	0.24 0.20 0.16 0.14 0.12 0.10 0.09 0.08 0.15 0.15 0.15 0.15 0.20 0.23
When nominal capacitance is over 1000µF tan δ shall be added 0.02 to the listed value with increase of every 1000µF 当容量大于 1000µF 时, 每增加 1000µF, 表中相应的损耗值也增加 0.02		
Temperature Stability(120Hz) 温度特性	Rated Voltage(V) 工作电压	6.3 10 16 25 35 50 63 100 160 200 250 350 400 450
	Impedance Ratio 损耗角正切值	Z-25°C/Z+20°C 4 3 2 3 6 Z-40°C/Z+20°C 8 6 4 3 8 -
Load Life (85°C) 耐久性	Time 时间	2000 hours
	Leakage current 漏电流	Not more than the specified value 不大于规定值
	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内
	Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%
Shelf Life (85°C) 高温贮存	After leaving capacitors under no load at 85°C for 1000 hours, capacitors shall meet the specified value for load life Characteristics listed above 电容器在 85°C 在贮存 1000 小时后, 测试其性能能满足上表耐久性试验参数要求	

DIMENSIONS (mm) 外形尺寸



∅ D	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
∅ d	0.5	0.5	0.6	0.6	0.6	0.8	0.8
α	~100V	1.0	1.0	1.0	1.5	1.5	1.5
	160V~	-	1.5	1.5	2.0	2.0	2.0
β	0.5	0.5	0.5	0.5	0.5	0.5	0.5

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

Rated voltage(V)	Freq(Hz) CV(µF.WV)	50.60	120	1K	10K	100K
6.3-16	ALL CV value	0.80	1	1.1	1.2	1.2
25-35	1000	0.80	1	1.5	1.7	1.7
	1000<	0.80	1	1.2	1.3	1.3
50-100	1000	0.80	1	1.6	1.9	1.9
	1000<	0.80	1	1.2	1.3	1.3
160-450	ALL CV value	0.80	1	1.3	1.5	1.6

Temperature coefficient 温度因子

Temperature(°C)	+70	+85
Factor	1.35	1



STANDARD RATINGS 额定技术参数

WV	6.3		10		16		25		35		50		63		100	
	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流
Cap (μ F)	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms
0.1	-	-	-	-	-	-	-	-	-	-	5x11	5	-	-	5x11	5
0.22	-	-	-	-	-	-	-	-	-	-	5x11	7	-	-	5x11	8
0.33	-	-	-	-	-	-	-	-	-	-	5x11	9	-	-	5x11	10
0.47	-	-	-	-	-	-	-	-	-	-	5x11	10	-	-	5x11	10
1	-	-	-	-	-	-	-	-	-	-	5x11	15	-	-	5x11	15
2.2	-	-	-	-	-	-	-	-	-	-	5x11	20	-	-	5x11	25
3.3	-	-	-	-	-	-	-	-	-	-	5x11	25	-	-	5x11	30
4.7	-	-	-	-	-	-	5x11	25	5x11	30	5x11	30	5x11	35	5x11	35
10	-	-	-	-	5x11	40	5x11	40	5x11	45	5x11	45	5x11	50	6.3x12	60
22	-	-	5x11	50	5x11	55	5x11	60	5x11	60	5x12	70	6.3x11	85	8x11.5	110
33	5x11	60	5x11	65	5x11	70	5x11	70	5x12	80	6.3x11	100	6.3x11	100	10x12.5	160
47	5x11	70	5x11	75	5x11	80	5x12	90	6.3x12	110	6.3x12	120	8x11.5	150	10x16	210
100	5x11	100	5x11	110	5x11	120	6.3x12	150	6x12	180	8x11.5	210	10x12.5	260	12.5x20	380
220	5x11	180	5x12	180	6.3x11	240	6x12	240	8x14	300	10x16	400	10x20	460	16x25	720
330	6.3x11	210	8x11.5	270	8x11.5	300	10x12.5	380	10x16	450	10x20	540	12.5x20	650	16x25	880
470	8x11.5	300	6x12	300	8x12	420	8x12	450	10x15	530	12.5x20	740	12.5x25	850	16x30	1150
1000	8x16	530	8x11.5	330	8x16	700	8x14	480	10x16	580	16x25	1350	16x30	1550	-	-
2200	10x20	990	8x12	600	10x16	740	10x20	950	12.5x20	1050	16x25	1750	18x30	2600	-	-
3300	12.5x20	1150	8x14	610	12.5x20	1000	13x22	1300	16x25	1750	18x30	2100	18x35	2600	-	-
4700	12x25	1700	10x16	620	16x25	1650	16x22	1700	16x30	2250	-	-	-	-	-	-
6800	16x25	1900	16x25	2200	16x30	2600	16x25	1900	-	-	-	-	-	-	-	-
10000	16x25	2250	16x30	2750	-	-	-	-	-	-	-	-	-	-	-	-
15000	18x35.5	2900	-	-	-	-	-	-	-	-	-	-	-	-	-	-

WV (v)	160		200		250		350		400		450	
	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流
Cap (μ F)	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms	ϕ DxL (mm)	mArms
0.47	6.3x11	10	6.3x11	10	6.3x11	10	6.3x11	10	-	-	-	-
1	6.3x11	15	6.3x11	15	6.3x11	15	8x11.5	15	8x11.5	15	10x12.5	15
2.2	6.3x11	20	6.3x11	20	8x11.5	25	8x12.5	30	8x12.5	20	10x16	25
3.3	8x11.5	35	8x11.5	35	8x12.5	35	8x12.5	35	8x12	30	10x20	35
4.7	8x11.5	40	8x12.5	50	8x12.5	40	10x16	45	10x16	35	12.5x20	45
10	10x12.5	70	10x16	75	10x16	75	10x20	75	10x20	45	12.5x25	75
22	10x16	120	10x20	120	12.5x20	140	12.5x20	140	16x25	140	16x31.5	140
33	10x20	180	12.5x20	190	12.5x20	170	12.5x25	200	16x31.5	190	18x35.5	200
47	12.5x20	230	12.5x25	220	16x25	240	16x25	260	18x35.5	260	-	-
100	16x25	400	16x25	430	16x30	440	-	-	-	-	-	-
220	16x30	730	18x30	760	-	-	-	-	-	-	-	-

Ripple Current 纹波电流: (mA,85°C/120Hz)



CD81 series

105°C 2000hours wide temperature

low leakage current

105°C 2000 小时宽温品，低漏品

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性																				
Operating Temperature Range(°C) 工作温度范围	-40~+105																				
Capacitance Tolerance(20°C,120Hz) 容量偏差	± 20%																				
Leakage Current 漏电流	$V \leq 100V$ 0.01CV+ 3 μA whichever is greater(at 20°C,after 1 minutes) 0.01CV 或 3 μA ,取最大值 (1 分钟,20°C) $V \geq 160V$ 0.03CV+ 10 μA whichever is greater(at 20°C,after 1 minutes) 0.03CV 或 10 μA ,取最大值 (1 分钟,20°C) C:Nominal capacitance 标称容量 (μF), V:Rated voltage 额定电压 (V)																				
Dissipation Factor(20°C,120Hz) 损耗角正切值	<table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>250</th> </tr> </thead> <tbody> <tr> <td>Tan δ 损耗角正切值</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> <td>0.12</td> <td>0.12</td> </tr> </tbody> </table> <p>When nominal capacitance is over 1000μFTan shall be added 0.02 to the listed value with increase of every 1000μF 当容量大于 1000μF 时，每增加 1000μF，表中相应的损耗值也增加 0.02</p>	Rated Voltage(V) 工作电压	10	16	25	35	50	63	100	160	250	Tan δ 损耗角正切值	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.12	0.12
Rated Voltage(V) 工作电压	10	16	25	35	50	63	100	160	250												
Tan δ 损耗角正切值	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.12	0.12												
Temperature Stability(120Hz) 温度稳定性	<p>Impedance ratio at 100Hz or 120Hz shall not exceed the values given in below table. 在 100Hz 或 120Hz 下的阻抗比不超过表中给出的值</p> <table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>250</th> </tr> </thead> <tbody> <tr> <td>Z-40°C/Z+20°C</td> <td>5</td> <td>5</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> </tbody> </table>	Rated Voltage(V) 工作电压	10	16	25	35	50	63	100	160	250	Z-40°C/Z+20°C	5	5	4	4	4	4	4	4	4
Rated Voltage(V) 工作电压	10	16	25	35	50	63	100	160	250												
Z-40°C/Z+20°C	5	5	4	4	4	4	4	4	4												
Load Life (+105°C) 耐久性	<p>After 200hours application of rated voltage at 105°C,the capacitors shall meet follow limits. 在 105°C 条件下，施加额定电压 2000 小时，电容器符合下列要求</p> <table border="1"> <tbody> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不大于规定值的两倍</td> </tr> </tbody> </table>	Leakage current 漏电流	Not more than the specified value 不大于规定值	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内	Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不大于规定值的两倍														
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Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不大于规定值的两倍																				
Shelf Life (+105°C) 高温贮存	<p>1000hours. No voltage application, the capacitors shall meet follow limits. 在 105°C 条件下，无负荷贮存 1000 小时，电容器符合下列要求</p> <table border="1"> <tbody> <tr> <td>Leakage current 漏电流</td> <td>Not more than 200% of the specified 不大于规定值的两倍</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不大于规定值的两倍</td> </tr> </tbody> </table>	Leakage current 漏电流	Not more than 200% of the specified 不大于规定值的两倍	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内	Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不大于规定值的两倍														
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DIMENSIONS(mm) 外形尺寸



∅ D	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
∅d	0.5	0.5	0.6	0.6	0.6	0.8	0.8
α	1.0	1.0	1.0	1.5	1.5	1.5	1.5

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

Rated voltage(V)	Freq(Hz) CV(μF.WV)	50.60	120	1K	10K	100K
10-16	ALL CV value	0.80	1	1.1	1.2	1.2
25-35	1000	0.80	1	1.5	1.7	1.7
	1000<	0.80	1	1.2	1.3	1.3
50-160	1000	0.80	1	1.6	1.9	1.9
	1000<	0.80	1	1.2	1.3	1.3

Temperature coefficient 温度因子

Temperature(°C)	+85	+105
Factor	1.35	1

STANDARD RATINGS 额定技术参数

Ripple Current 纹波电流: (mA,105°C/120Hz)

WV	10		16		25		35		50		63		100		160		250		
	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	
Cap (μF)	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	
0.1									5x11	3					5x11	2			
0.22									5x11	4					5x11	3			
0.33									5x11	5					5x11	3			
0.47									5x11	6			5x11	6	5x11	4			
0.68									5x11	7			5x11	7	5x11	5			
1									5x11	8			5x11	9	5x11	6	6.3x11	15	
1.5									5x11	10			5x11	11	5x11	7			
2.2									5x11	12			5x11	13	6.3x11	10	6.3x12	25	
3.3									5x11	15			5x11	16	6.3x11	12	8x12	35	
4.7									5x11	17	5x11	18	5x11	20	8x12	17	8x12	40	
6.8									5x11	21	5x11	22	6.3x11	26	8x12	21			
10									5x11	25	6.3x11	27	6.3x12	32	10x12	28	10x16	75	
15									5x11	31	6.3x11	37	8x12	46	10x16	40			
22								5x11	35	5x12	38	6.3x11	45	10x12	62	10x16	54	12.5x20	140
33					5x11	39	5x11	42	6.3x11	52	6.3x12	55	10x16	88	12.5x20	75	12.5x20	170	
47			5x11	44	5x12	47	6.3x11	57	6.3x12	62	8x12	77	10x16	105	12.5x20	90	12.5x25	240	
68			5x11	53	6.3x11	63	6.3x11	68	8x12	88	10x12	104	10x20	142	12.5x25	120			
100	5x11	57	6.3x11	72	6.3x12	76	8x12	97	8x12	107	10x12	126	12.5x20	196	16x25	162	16x30	440	
150	6.3x11	70	6.3x11	88	8x12	110	10x12	133	10x12	146	10x16	178	12.5x20	340					
220	6.3x11	95	6.3x12	125	8x12	134	10x12	161	10x16	204	10x20	274	16x25	361					
330	8x12	137	8x12	153	10x12	183	10x16	228	10x20	279	12.5x20	336	16x25	442					
470	8x12	163	8x12	204	10x16	252	10x16	304	12.5x20	380	12.5x12	448	16x30	577					
680	10x12	220	10x16	283	10x20	339	12.5x20	417	12.5x25	511	16x25	598							
1000	10x16	307	10x16	384	10x20	468	12.5x20	506	16x25	688	16x30	794							
1500	10x20	421	10x20	537	12.5x20	574	16x25	769	16x30	922									
2200	12.5x20	554	12.5x20	813	12.5x25	806	16x25	944	18x35	1168									
3300	12.5x20	650	12.5x25	883	16x25	1020	16x30	1239											
4700	16x25	924	16x25	1101	16x30	1323													
6800	16x30	1134																	



CD117H series

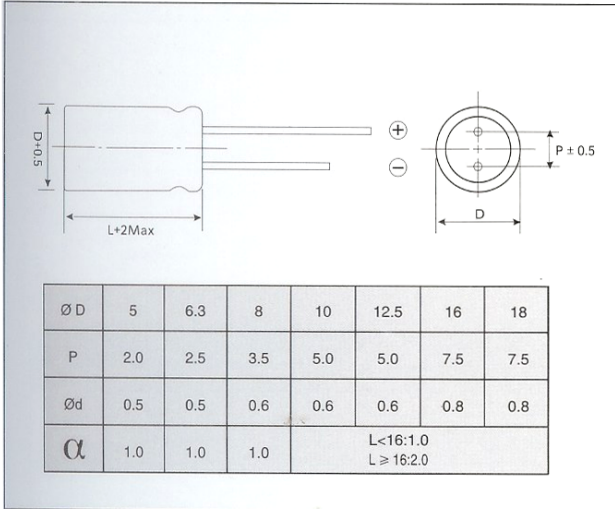
Load life of 1000 hours at 105°C,
 high and stable quality,
 low leakage current and low cost,
 for general consumer electronic products application.
 105°C 1000 小时负荷寿命，高稳定性质量，低漏电流、低成本，适用于普通电子消费产品。

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性																														
Operating Temperature Range(°C) 工作温度范围	-40~+105°C																														
Rated Voltage Range(V) 额定电压范围	6.3~100																														
Capacitance Tolerance(20°C,120Hz) 容量偏差	± 10%																														
Leakage Current 漏电流	0.006CV or 0.5 μA whichever is greater(at 25°C, after 1 minutes) 0.006CV 或 0.5 μA, 取最大值 (1分钟, 25°C) 0.002CV or 0.3 μA whichever is greater(at 25°C, after 1 minutes) 0.002CV 或 0.3 μA, 取最大值 (2分钟, 25°C) C:Nominal capacitance 标称容量 (μF), V:Rated voltage 额定电压 (V)																														
Dissipation Factor(20°C,120Hz) 损耗角正切值	When nominal capacitance is over 1000μF tan δ shall be added 0.02 to the listed value with increase of every 1000μF 当容量大于 1000μF 时，每增加 1000μF，表中相应的损耗值也增加 0.02 <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="2">Rated Voltage(V) 额定电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Tan δ 损耗角正切值</td> <td>10X12.5</td> <td>0.18</td> <td>0.15</td> <td>0.12</td> <td>0.08</td> <td>0.08</td> <td>0.08</td> <td>0.07</td> <td>0.07</td> </tr> <tr> <td></td> <td>10X16</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> <td>0.21</td> </tr> </tbody> </table>	Rated Voltage(V) 额定电压		6.3	10	16	25	35	50	63	100	Tan δ 损耗角正切值	10X12.5	0.18	0.15	0.12	0.08	0.08	0.08	0.07	0.07		10X16	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Rated Voltage(V) 额定电压		6.3	10	16	25	35	50	63	100																						
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	10X16	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21																						
Temperature Stability(120Hz) 温度稳定性	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="2">Rated Voltage(V) 额定电压</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated Voltage(V) 额定电压		6.3	10	16	25	35	50	63	100	Impedance ratio 阻抗比	Z-25°C/Z+20°C	4	3	2	2	2	2	2	2	Z-40°C/Z+20°C	8	6	4	3	3	3	3	3	
Rated Voltage(V) 额定电压		6.3	10	16	25	35	50	63	100																						
Impedance ratio 阻抗比	Z-25°C/Z+20°C	4	3	2	2	2	2	2	2																						
	Z-40°C/Z+20°C	8	6	4	3	3	3	3	3																						
Load Life (+105°C) 耐久性	After an application of D.C. Bias voltage plus the rated ripple current for 2000 hours at 105°C, the capacitors meet the characteristic requirements show on the below table. 在 105°C 条件下，施加额定电压和额定纹波电流 2000 小时，电容器符合下列特性要求 <table border="1" style="margin-left: 20px;"> <tbody> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不超过规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200% of the specified value 不超过规定值的 200%</td> </tr> </tbody> </table>	Leakage current 漏电流	Not more than the specified value 不超过规定值	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内	Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不超过规定值的 200%																								
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Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不超过规定值的 200%																														
Shelf Life (+105°C) 高温贮存	1000 hours. No voltage applied. After test: UR to be applied for 30 minutes, 24 to 48 hours before measurement. 1000 小时，试验后断电 30 分钟，测量前 24 到 48 小时																														



DIMENSIONS(mm) 外形尺寸



MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Rated voltage(V)	Freq(Hz) CV(μF.WV)	50	60	120	1K	10K
6.3~100	0.1~47	0.75	0.75	1.0	1.57	2.0
	100~47	0.80	0.80	1.0	1.34	1.5
	1000~2200	0.85	0.85	1.0	1.13	1.15

Temperature(°C)	+70	+85	+105
Rated Voltage(V)			
6.3~100	2.0	1.7	1.0

STANDARD RATINGS 额定技术参数

WV (v)	6.3		10		16		25		35		50		63		100	
	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流	Size 尺寸	Ripple 纹波 电流
Cap (μF)	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms	∅DxL (mm)	mArms
0.47	-	-	-	-	-	-	-	-	-	-	5x11	5.0	-	-	5x11	10.1
1.0	-	-	-	-	-	-	-	-	-	-	5x11	10.7	-	-	5x11	19
2.2	-	-	-	-	-	-	-	-	-	-	5x11	23	-	-	5x11	28
3.3	-	-	-	-	-	-	-	-	-	-	5x11	40	-	-	5x11	45
4.7	-	-	-	-	-	-	5x11	45	-	-	5x11	45	-	-	5x11	50
10	-	-	-	-	5x11	55	5x11	70	-	-	5x11	70	6.3x11	75	8x11.5	90
22	-	-	-	-	5x11	85	5x11	100	6.3x11	110	6.3x11	110	8x11.5	115	10x12.5	136
33	-	-	-	-	5x11	100	6.3x11	140	6.3x11	140	8x11.5	165	8x11.5	170	10x18	180
47	-	-	5x11	110	6.3x11	140	6.3x11	170	8x11.5	190	8x11.5	190	10x12.5	200	10x20	220
100	-	-	6.3x11	180	8x11.5	230	8x11.5	280	10x12.5	300	10x16	320	10x20	330	12.5x20	370
220	-	-	8x11.5	310	10x12.5	370	10x16	400	10x20	440	12.5x20	490	12.5x20	550	16x25	580
330	-	-	10x12.5	400	10x16	420	10x20	490	12.5x20	550	12.5x20	600	12.5x25	710	16x31.5	730
470	10x12.5	390	10x16	530	10x20	550	11.5x20	660	12.5x25	680	16x25	760	16x25	850	18x35.5	910
1000	10x20	650	12.5x20	810	12.5x25	910	16x25	1010	16x25	1100	16x31.5	1140	16x35.5	1330	-	-
2200	12.5x25	1060	16x25	1200	16x25	1300	16x35.5	1440	18x35.5	1580	-	-	-	-	-	-

Ripple Current 纹波电流: **20KHz**)



CD288Z series

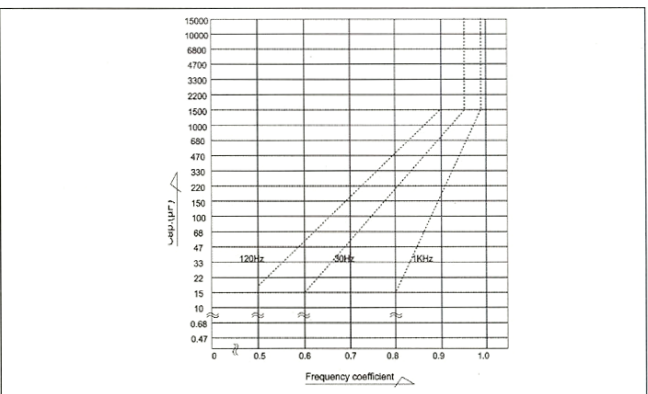
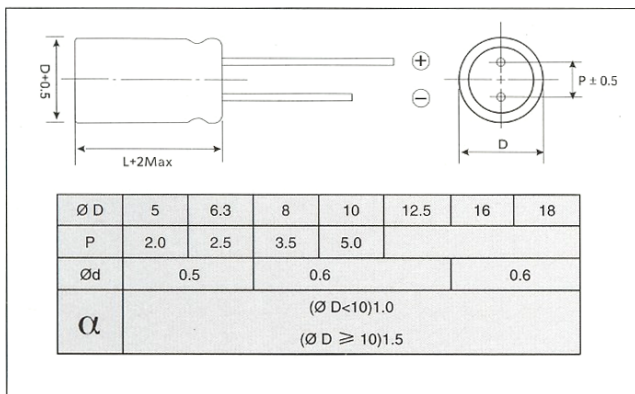
High Frequency, Low impedance and high reliability
withstanding 2000 hour load life at + 105 °C
高频、低阻抗、高可靠性, 105 °C 2000 小时
Suitable for switching power supplies,
UPS power supplies power sources, etc.
适合开关电源, UPS 电源, 电源供应器等

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性																						
Operating Temperature Range(°C) 工作温度范围	-40~+105																						
Rated Voltage Range(V) 额定电压范围	6.3~50																						
Capacitance Tolerance(20°C,120Hz) 容量偏差	± 20%																						
Leakage Current 漏电流	0.01CV or 3 μA whichever is greater.(at 20°C after 2 minutes. 0.01CV or 3 μA 取最大值(2 分钟, 20°C) C:Nominal capacitance 标称容量 (μF) V:Rated voltage 额定电压 (V)																						
Dissipation Factor(20°C,120Hz) 损耗角正切值	When nominal capacitance is over 1000μFtan shall be added 0.02 to the listed value with increase of every 1000μF 当容量大于 1000μF 时, 每增加 1000μF, 表中相应的损耗角正切值也增加 0.02																						
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Rated Voltage(V) 额定电压	6.3	10	16	25	35	50																	
Tan δ 损耗角正切值	0.22	0.18	0.14	0.12	0.10	0.08																	
Temperature Stability(120Hz) 温度稳定性	<table border="1"> <tr> <td>Rated Voltage(V) 工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td rowspan="2">Impedance Ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated Voltage(V) 工作电压	6.3	10	16	25	35	50	Impedance Ratio 阻抗比	Z-25°C/Z+20°C	2	2	2	2	2	2	Z-40°C/Z+20°C	3	3	3	3	3	3
	Rated Voltage(V) 工作电压	6.3	10	16	25	35	50																
Impedance Ratio 阻抗比	Z-25°C/Z+20°C	2	2	2	2	2	2																
	Z-40°C/Z+20°C	3	3	3	3	3	3																
Load Life (105°C) 耐久性	After an application of D.C.Bias voltage plus the rated ripple current for 200 hours at 105°C,the capacitors meet the characteristic requirements shown on the below table. 105°C 条件下, 施加额定电压和额定纹波电流 2000 小时, 电容器符合下列特性要求																						
	<table border="1"> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不超过规定值</td> </tr> <tr> <td>Capacitance change 容量范围</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不超过规定值的 200%</td> </tr> </table>	Leakage current 漏电流	Not more than the specified value 不超过规定值	Capacitance change 容量范围	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内	Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不超过规定值的 200%																
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Capacitance change 容量范围	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内																						
Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不超过规定值的 200%																						
Shelf Life (105°C) 高温贮存	After leaving capacitors under no load at 105°C for 500 hours,capacitors shall meet the specified value for load life Characteristics listed above 电容器在 105°C 贮存 1000 小时后, 测试其性能应满足上表耐久性试验参数要求																						

DIMENSIONS (mm) 外形尺寸

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子





STANDARD RATINGS 额定技术参数

Size 外形尺寸: \varnothing DxL(mm)

Impedance 阻抗: (20°C/100kHz)

Ripple Current 纹波电流: (mA,105°C/100kHz)

WV (v)	6.3			10			16		
	Nominal Capacitors	Impedance 阻抗	Ripple Current 纹波电流	Nominal Capacitors	Impedance 阻抗	Ripple Current 纹波电流	Nominal Capacitors	Impedance 阻抗	Ripple Current 纹波电流
	μ F	Ω	mArms	μ F	Ω	mArms	μ F	Ω	mArms
DxL (mm)									
5X11.5	150	0.3	250	100	0.30	250	56	0.30	250
6.3X11.5	330	0.13	405	220	0.13	405	120	0.13	405
8X12	560	0.072	760	170	0.072	760	330	0.072	760
8X16	820	0.056	995	680	0.056	995	470	0.053	1030
8x20	1200	0.041	1250	1000	0.041	1250	680	0.041	1250
10X12.5	1000	0.053	1030	680	0.053	1030	470	0.053	1030
10X16	1200	0.038	1430	1000	0.038	1430	680	0.038	1430
10X20	1500	0.023	1820	1200	0.023	1820	1000	0.023	1820
10X25	2200	0.022	2150	1500	0.022	2150	1200	0.022	2150
12.5X20	3300	0.021	2360	2200	0.021	2360	1500	0.021	2360
12.5X25	3900	0.018	2770	3300	0.018	2770	2200	0.018	2770
12.5X30	4700	0.016	3290	3900	0.016	3290	2700	0.016	3290
12.5X35	5600	0.015	3400	4700	0.015	3400	3300	0.015	3400
16X20	5600	0.018	3140	3900	0.018	3140	2700	0.018	3140
16X25	6800	0.016	3460	5600	0.016	3460	3900	0.016	3460

WV (v)	25			35			50		
	Nominal Capacitors	Impedance 阻抗	Ripple Current 纹波电流	Nominal Capacitors	Impedance 阻抗	Ripple Current 纹波电流	Nominal Capacitors	Impedance 阻抗	Ripple Current 纹波电流
	μ F	Ω	mArms	μ F	Ω	mArms	μ F	Ω	mArms
DxL (mm)									
5X11.5	47	0.3	250	33	0.3	250	22	0.34	238
6.3X11.5	100	0.13	405	56	0.13	405	56	0.14	385
8X12	220	0.072	760	150	0.072	760	100	0.074	724
8X16	330	0.056	995	220	0.056	995	120	0.061	950
8x20	470	0.041	1250	270	0.041	1250	180	0.046	1190
10X12.5	680	0.053	1030	220	0.053	1030	150	0.061	979
10X16	820	0.038	1430	330	0.038	1430	220	0.042	1370
10X20	1000	0.023	1820	470	0.023	1820	270	0.030	1580
10X25	1500	0.022	2150	560	0.022	2150	330	0.028	1870
12.5X20	1800	0.021	2360	680	0.021	2360	470	0.027	2050
12.5X25	2200	0.018	2770	1000	0.018	2700	560	0.023	2410
12.5X30	1800	0.016	3290	1200	0.016	3290	680	0.021	2860
12.5X35	2200	0.015	3400	1500	0.015	3400	820	0.019	2960
16X20	1800	0.018	3140	1200	0.018	3140	820	0.023	2730
16X25	2700	0.016	3460	1800	0.016	3460	1000	0.021	3010



CD71 Series

Standard bi-polarized series for entertainment electronics
 无极性，用于消费类电子

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性																																		
Operating Temperature Range(°C) 工作温度范围	-40~+85																																		
Capacitance Tolerance(20°C,120Hz) 容量偏差	± 20%																																		
Leakage Current 漏电流	$\leq 0.03CV+3 \mu A$ whichever is greater(at 20°C,after 2 minutes) $\leq 0.03CV+3 \mu A$ 取最大值 (2分钟,20°C) C:Nominal capacitance 标称容量 (μF), V:Rated voltage 额定电压 (V)																																		
Dissipation Factor(20°C,120Hz) 损耗角正切值	<table border="1"> <tr> <td>Rated Voltage(V) 工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>250</td> </tr> <tr> <td>Tan δ 损耗角正切值</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.15</td> <td>0.15</td> </tr> </table>	Rated Voltage(V) 工作电压	6.3	10	16	25	35	50	63	100	160	250	Tan δ 损耗角正切值	0.24	0.20	0.16	0.16	0.14	0.12	0.10	0.09	0.15	0.15												
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Tan δ 损耗角正切值	0.24	0.20	0.16	0.16	0.14	0.12	0.10	0.09	0.15	0.15																									
Temperature Stability(120Hz) 温度稳定性	<table border="1"> <tr> <td colspan="2">Rated Voltage(V) 工作电压</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> <td>250</td> </tr> <tr> <td rowspan="2">Impedance ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>3</td> <td colspan="6">2</td> <td>4</td> <td>4</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td colspan="3">3</td> <td>-</td> <td>-</td> </tr> </table>	Rated Voltage(V) 工作电压		6.3	10	16	25	35	50	63	100	160	250	Impedance ratio 阻抗比	Z-25°C/Z+20°C	4	3	2						4	4	Z-40°C/Z+20°C	10	8	6	4	3			-	-
Rated Voltage(V) 工作电压		6.3	10	16	25	35	50	63	100	160	250																								
Impedance ratio 阻抗比	Z-25°C/Z+20°C	4	3	2						4	4																								
	Z-40°C/Z+20°C	10	8	6	4	3			-	-																									
Load Life(85°C) 耐久性	<table border="1"> <tr> <td>Time 时间</td> <td>2000 hours.(Polarity inverts for every 250 hours) 2000 小时 (每 250 小时交换极性)</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不超过规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 150%of the specified value 不大于规定值的 150%</td> </tr> </table>	Time 时间	2000 hours.(Polarity inverts for every 250 hours) 2000 小时 (每 250 小时交换极性)	Leakage current 漏电流	Not more than the specified value 不超过规定值	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 以内	Dissipation Factor 损耗角正切值	Not more than 150%of the specified value 不大于规定值的 150%																										
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Dissipation Factor 损耗角正切值	Not more than 150%of the specified value 不大于规定值的 150%																																		
Shelf Life(85°C) 高温贮存	1000hours. No voltage applied.They meet the specified value for load life characteristics listed above. 电容器在 85°C条件下，贮存 1000 小时后，测试其性能应满足上表耐久性试验参数要求																																		



DIMENSIONS(mm) 外形尺寸

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Ø D	5	6.3	8	10	16	18
P	2.0	2.5	3.5	5.0	7.5	7.5
Ød	0.5	0.5	0.6	0.6	0.8	0.8
α	(Ø D < 10) 1.0					
	(Ø D ≥ 10) 1.5					

Frequency coefficient 频率因子

Freq(Hz)	50.60	120	1K	10K	100K
WV					
6.3~16	0.80	1	1.1	1.2	1.2
25~35	0.80	1	1.5	1.7	1.7
50~160	0.80	1	1.6	1.9	1.9

Temperature coefficient 温度因子

Temperature(°C)	+70	+85
Factor	1.35	1.0

STANDARD RATINGS 额定技术参数

Size 外形尺寸: $\phi D \times L$ (mm) **Ripple Current** 纹波电流: (mA, 85°C/100/120Hz)

WV	6.3		10		16		25		35		50		63		100		160		250	
	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流	Size 尺寸	Ripple 纹波电流
Cap (µF)	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms	$\phi D \times L$ (mm)	mArms
0.1	-	-	-	-	-	-	-	-	-	-	5X11	4	-	-	5X11	5	-	-	-	-
0.22	-	-	-	-	-	-	-	-	-	-	5X11	7	-	-	5X11	8	-	-	-	-
0.33	-	-	-	-	-	-	-	-	-	-	5X11	8	-	-	5X11	9	-	-	-	-
0.47	-	-	-	-	-	-	-	-	-	-	5X11	10	-	-	5X11	11	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	5X11	14	-	-	5X11	16	6.3X12	25	6.3X12	25
2.2	-	-	-	-	-	-	-	-	-	-	5X11	21	5X11	23	5X11	24	8X12	39	8X12	40
3.3	-	-	-	-	-	-	-	-	-	-	5X11	26	5X11	28	6.3X11	34	10X12	49	10X12	52
4.7	-	-	-	-	-	-	5X11	28	5X11	28	5X11	31	5X11	34	6.3X11	41	10X16	59	10X16	64
10	-	-	-	-	5X11	39	5X11	40	5X11	42	6.3X11	45	6.3X11	57	8X11.5	70	10X20	109	12.5X20	120
22	-	-	5X11	52	5X11	58	5X11	60	6.3X11	71	6.3X12	77	8X11.5	89	10X16	136	12.5X20	177	12.5X25	190
33	5X11	58	5X11	63	5X11	71	6.3X11	84	6.3X11	87	8X12.5	111	10X12.5	144	10X20	181	12.5X25	240	-	-
47	5X11	69	5X11	5	6.3X11	97	6.3X11	100	8X11.5	122	10X12.5	157	10X16	188	12.5X20	248	16X25	329	-	-
100	6.3X11	115	6.3X11	126	8X11.5	167	8X12.5	204	10X12.5	212	10X20	273	12.5X20	343	16X25	458	18X35.5	425	-	-
220	8X11.5	202	8X11.5	221	10X12.5	294	10X16	332	10X20	375	12.5X20	506	16X25	645	18X35.5	837	-	-	-	-
330	8X11.5	247	10X12.5	322	10X16	394	10X20	444	12.5X20	526	12.5X25	620	-	-	-	-	-	-	-	-
470	10X12.5	350	10X16	420	10X20	513	12.5X20	607	12.5X25	685	16X25	861	-	-	-	-	-	-	-	-
1000	10X20	611	12.5X20	767	12.5X25	935	16X25	1120	16X31.5	1270	-	-	-	-	-	-	-	-	-	-
2200	12.5X25	1090	16X25	1380	16X31.5	1660	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3300	16X25	1490	16X31.5	1760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4700	16X31.5	1880	18X35.5	2280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



CD293 series

Load life 2000 hours at 85°C

负荷寿命 85°C 2000 小时

High ripple current

高纹波电流

Small size

小尺寸

PCB Mounting

印刷电路安装

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性																						
Operating Temperature Range(°C) 工作温度范围	-40°C~+85V(450WV-25°C-85°C)																						
Capacitance Tolerance(20°C,120Hz) 容量偏差	± 20%																						
Leakage Current 漏电流	0.01CV or 1.5mA whichever is smaller.(at 20°C,5 minutes) C:Nomial Capacitance 标准容量(μF) 0.01CV 或 1.5mA 取最小值(5 分钟, 20°C) V:Rated Voltage 额定电压 (V)																						
Dissipation Factor(20°C,120Hz) 损耗角正切值	<table border="1"> <tr> <td>Rated Voltage(V) 工作电压</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63-100</td> <td>160-250</td> <td>315-450</td> </tr> <tr> <td>Tan δ 损耗角正切值</td> <td>0.40</td> <td>0.40</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.20</td> <td>0.15</td> <td>0.15</td> </tr> </table>	Rated Voltage(V) 工作电压	10	16	25	35	50	63-100	160-250	315-450	Tan δ 损耗角正切值	0.40	0.40	0.30	0.25	0.20	0.20	0.15	0.15				
Rated Voltage(V) 工作电压	10	16	25	35	50	63-100	160-250	315-450															
Tan δ 损耗角正切值	0.40	0.40	0.30	0.25	0.20	0.20	0.15	0.15															
Temperature Stability(120Hz) 温度特性	<table border="1"> <tr> <td>Rated Voltage(V) 工作电压</td> <td>10</td> <td>15-35</td> <td>50-100</td> <td>160-200</td> <td>250-400</td> <td>450</td> </tr> <tr> <td rowspan="2">Impedance Ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>4</td> <td>4</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>18</td> <td>15</td> <td>10</td> <td>6</td> <td>8</td> <td>-</td> </tr> </table>	Rated Voltage(V) 工作电压	10	15-35	50-100	160-200	250-400	450	Impedance Ratio 阻抗比	Z-25°C/Z+20°C	5	4	3	3	4	4	Z-40°C/Z+20°C	18	15	10	6	8	-
Rated Voltage(V) 工作电压	10	15-35	50-100	160-200	250-400	450																	
Impedance Ratio 阻抗比	Z-25°C/Z+20°C	5	4	3	3	4	4																
	Z-40°C/Z+20°C	18	15	10	6	8	-																
Load Life (85°C) 耐久性	<table border="1"> <tr> <td>Time 时间</td> <td>2000 hours</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不大于规定值的 200%</td> </tr> </table>	Time 时间	2000 hours	Leakage current 漏电流	Not more than the specified value 不大于规定值	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内	Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不大于规定值的 200%														
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Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内																						
Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不大于规定值的 200%																						
Shelf Life (85°C) 高温贮存	After storage for 1000 hours at 85°C,with no voltage applied,the capacitor shall meet the specified limits for "Load Life" 电容器在 85°C 贮存 1000 小时后, 测试其性能应满足上表耐久性试验参数要求。																						



DIMENSIONS (mm) 外形尺寸

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

(PC board hole dimensions) (Terminal dimensions)

Frequency coefficient 频率因子

Freq(Hz)	50	120	1K	10K	20K
Rated Voltage(V)					
≤ 50	0.95	1	1.10	1.15	1.15
63-100	0.95	1	1.16	1.30	1.33
≥ 160	0.90	1	1.20	1.50	1.55

Temperature coefficient 温度因子

Temperature(°C)	+40	+55	+70	+85
Rated voltage(V)				
<160	2.1	1.8	1.5	1.0
≥ 160	1.7	1.5	1.3	1.0

STANDARD RATINGS 额定技术参数

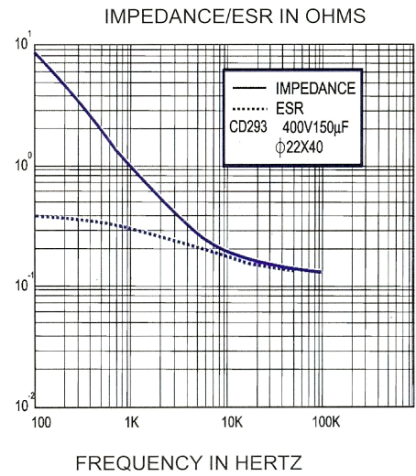
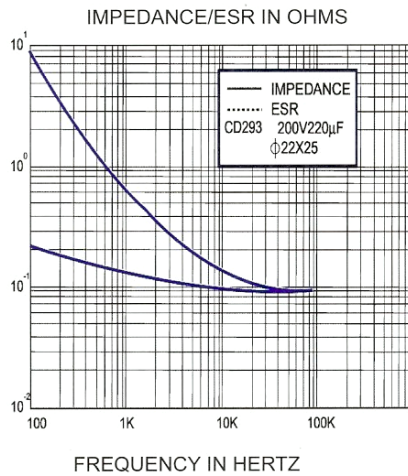
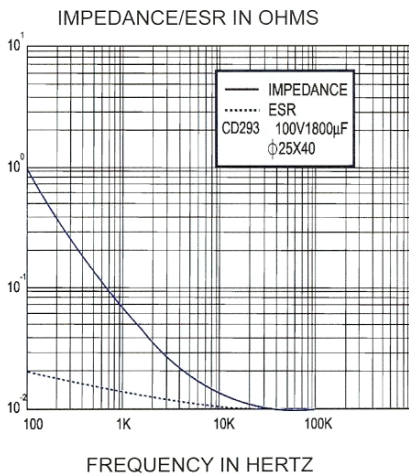
WV(V)	10		16		25		35		50		63		80		100	
	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流
	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms
22x25	10000	2.5	8200	2.2	5600	2.0	3300	1.8	2200	1.7	1500	1.6	1000	1.3	680	1.1
22x30	15000	3.2	10000	2.6	6800	2.3	3900	2.1	2700	1.9	2200	2.0	1200	1.5	820	1.2
22x35	18000	3.6	12000	2.9	8200	2.6	5600	2.3	3900	2.1	2700	2.2	1800	1.9	1200	1.6
22x40	22000	4.0	15000	3.3	10000	2.9	6800	2.9	4700	2.4	3300	2.3	2200	2.1	1500	1.8
22x45			18000	3.8	12000	3.3					3900	2.5				
22x50			22000	4.2			8200	2.8	5600	2.5			2700	2.5	1800	2.1
25x25	15000	3.1	10000	2.6	6800	2.3	4700	2.2	2700	1.9	2200	2.0	1500	1.7	1000	1.4
25x30	18000	3.6	15000	3.3	10000	2.8	5600	2.3	3900	2.1	2700	2.3	1800	1.9	1200	1.6
25x35	22000	4.1	18000	3.7	12000	3.2	6800	2.6	4700	2.4	3300	2.3	2200	2.2	1500	1.7
25x40			22000	4.2	15000	3.7	8200	2.8	5600	2.5	3900	2.6	2700	2.5	1800	2.0
25x45							1000	3.1	6800	2.8	5600	3.1	3300	2.8	2200	2.2
25x50					18000	4.3	12000	3.5	8200	3.2			3900	3.1	2700	2.6
30x25	22000	4.1	15000	3.4	10000	3.0	6800	2.7	3900	2.4	3300	2.3	2200	2.2	1500	1.8
30x30			22000	4.2	12000	3.4	8200	2.8	5600	2.5	3900	2.6	2700	2.5	1800	2.1
30x35					18000	1.2	1000	3.2	6800	2.8	5600	3.2	3300	2.8	2200	2.3
30x40					22000	4.8	1200	3.5	8200	3.0	6800	3.6	3900	3.2	2700	2.7
30x45							15000	4.1	10000	3.4			4700	3.6	3300	3.0
30x50							18000	4.6	12000	3.8	8200	3.7	5600	3.5	3900	3.4
35x25			22000	4.4	15000	3.9	8200	2.9	5600	2.6	3900	2.7	2700	2.5	1800	2.2
30x30					18000	4.4	12000	3.6	8200	3.0	5600	3.3	3900	3.2	2200	2.5
35x35					22000	5.0	15000	4.1	10000	3.4	6800	3.7	4700	3.6	3300	3.1
35x40							18000	4.7	12000	3.8	8200	3.8	5600	3.5	3900	3.4
35x45							22000	5.3			10000	4.3				
35x50									15000	4.5	12000	4.8	6800	4.1	4700	4.0



Size øDxL (mm)	160		180		200		250		315		350		400		450	
	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流
	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms
22x25	330	3.1	270	1.2	220	1.1	180	0.94	100	0.67	82	0.64	68	0.56		
22x30	390	1.5	330	1.4	330	1.4	220	1.1	150	0.85	120	0.82	100	0.70	66	0.57
22x35	560	1.9	470	1.7	390	1.6	270	1.2	180	0.96	150	0.94	120	0.79	100	0.72
22x40	680	2.1	560	1.9	470	1.8	330	1.4	220	1.1	180	1.1	150	0.90	120	0.80
22x45					560	2.0	390	1.6	270	1.2	220	1.2	180	1.0		
22x50	820	2.5	680	2.3			470	1.8					220	1.1	150	0.95
25x25	390	1.5	390	1.5	330	1.4	220	1.1	150	0.85	120	0.81	100	0.70		
25x30	560	1.9	470	1.7	390	1.6	330	1.4	180	0.96	150	0.94	150	0.89	100	0.73
25x35	680	2.2	560	2.0	560	2.0	390	1.6	220	1.1	220	1.2	180	1.0	120	0.83
25x40	820	2.4	680	2.2	680	2.3	470	1.8	270	1.3			220	1.2	150	0.95
25x45	1000	2.7	820	2.5			560	2.0	330	1.4	270	1.4	270	1.3	180	1.1
25x50	1200	3.1	1000	2.9	820	2.6			390	1.6	330	1.6			220	1.2
30x25	560	2.0	470	1.8	470	1.9	330	1.5	220	1.1	180	1.1	150	0.95		
30x30	680	2.5	680	2.3	560	2.1	470	1.8	270	1.6	220	1.2	180	1.1	150	0.98
30x35	1000	2.8	820	2.6	680	2.4	560	2.0	330	1.4	270	1.4	220	1.2	180	1.1
30x40	1200	3.2	1000	2.9	820	2.7	680	2.3	390	1.6	390	1.7	270	1.4	220	1.3
30x45	1500	3.7	1200	3.3	1000	3.1	820	2.6	170	1.8	470	2.0	330	1.6	270	1.4
30x50					1200	3.4			560	2.0			390	1.8		
35x25	820	2.4	680	2.2	560	2.0	470	1.9	270	1.3	220	1.3	180	1.2	180	1.2
35x30	1000	2.7	820	2.5	820	2.5	680	2.4	390	1.6	330	1.6	270	1.6	220	1.3
35x35	1200	3.0	1200	3.1	1000	2.8	820	2.6	470	1.8	390	1.8	330	1.7	270	1.5
35x40	1500	3.5			1200	3.2	1000	3.0	560	2.0	470	2.0	390	1.8		
35x45	1800	3.9	1500	3.6			1200	3.4	680	2.3	560	2.3	470	2.1	390	1.9
35x50	2200	4.5	1800	4.1	1500	3.8					680	2.6	560	2.3	470	2.2

Ripple Current 纹波电流: (mA,85°C/120Hz)

TYPICAL CURVES 典型曲线





CD293H series

Load life of 2000 hours at 105°C

105°C 2000 小时负荷寿命

High ripple current

高纹波电流

Small size

小尺寸

PCB Mounting

印刷电路安装

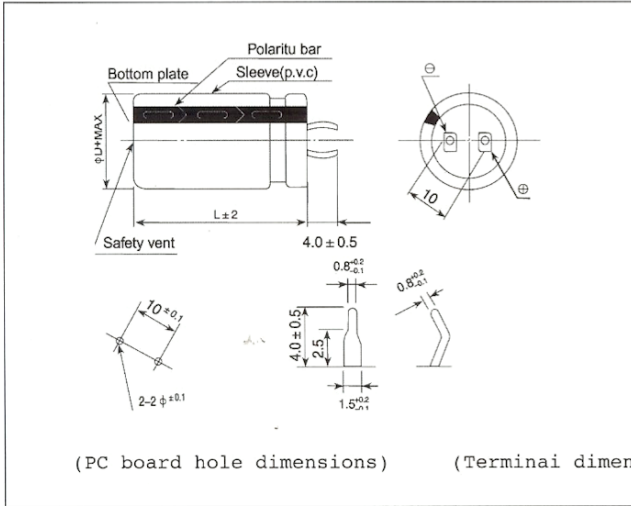
SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性																										
Operating Temperature Range(°C) 工作温度范围	-40~+105°C(250~400WV;-25°C~105°C)																										
Capacitance Tolerance(20°C,120Hz) 容量偏差	± 20%																										
Leakage Current 漏电流	0.01CV or 1.5mA whichever is smaller.(at 20°C,5 minutes) C:Nomial Capacitance 标准容量(μF) 0.01CV 或 1.5mA 取最小值(5分钟, 20°C) V:Rated Voltage 额定电压 (V)																										
Dissipation Factor(20°C,120Hz) 损耗角正切值	<table border="1"> <thead> <tr> <th>Rated Voltage(V) 工作电压</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63-100</th> <th>160-200</th> <th>250-400</th> </tr> </thead> <tbody> <tr> <td>Tan δ 损耗角正切值</td> <td>0.45</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.15</td> <td>0.12</td> <td>0.15</td> </tr> </tbody> </table>	Rated Voltage(V) 工作电压	10	16	25	35	50	63-100	160-200	250-400	Tan δ 损耗角正切值	0.45	0.35	0.30	0.25	0.20	0.15	0.12	0.15								
Rated Voltage(V) 工作电压	10	16	25	35	50	63-100	160-200	250-400																			
Tan δ 损耗角正切值	0.45	0.35	0.30	0.25	0.20	0.15	0.12	0.15																			
Temperature Stability(120Hz) 温度特性	<table border="1"> <thead> <tr> <th colspan="2">Rated Voltage(V) 工作电压</th> <th>10.16</th> <th>25</th> <th>35</th> <th>50.63</th> <th>80.100</th> <th>160-200</th> <th>250-400</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance Ratio 阻抗比</td> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>Z-40°C/Z+20°C</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>5</td> <td>6</td> <td>-</td> </tr> </tbody> </table>	Rated Voltage(V) 工作电压		10.16	25	35	50.63	80.100	160-200	250-400	Impedance Ratio 阻抗比	Z-25°C/Z+20°C	4	3	3	2	2	3	4	Z-40°C/Z+20°C	15	10	8	6	5	6	-
Rated Voltage(V) 工作电压		10.16	25	35	50.63	80.100	160-200	250-400																			
Impedance Ratio 阻抗比	Z-25°C/Z+20°C	4	3	3	2	2	3	4																			
	Z-40°C/Z+20°C	15	10	8	6	5	6	-																			
Load Life (105°C) 耐久性	<table border="1"> <thead> <tr> <th>Time 时间</th> <th>2000 hours</th> </tr> </thead> <tbody> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 范围内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200%of the specified value 不大于规定值的 200%</td> </tr> </tbody> </table>	Time 时间	2000 hours	Leakage current 漏电流	Not more than the specified value 不大于规定值	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内	Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不大于规定值的 200%																		
Time 时间	2000 hours																										
Leakage current 漏电流	Not more than the specified value 不大于规定值																										
Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 范围内																										
Dissipation Factor 损耗角正切值	Not more than 200%of the specified value 不大于规定值的 200%																										
Shelf Life (105°C) 高温贮存	After storage for 1000 hours at 105°C,with no voltage applied,the capacitor shall meet the specified limits for "Load Life" 电容器在 105°C 贮存 1000 小时后, 测试其性能应满足上表耐久性试验参数要求。																										



DIMENSIONS (mm) 外形尺寸

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子



Frequency coefficient 频率因子

Freq(Hz)	50	120	1K	10K	20K
Rated Voltage(V)					
≤ 50	0.95	1	1.10	1.15	1.15
63-100	0.95	1	1.16	1.30	1.33
≥ 160	0.90	1	0.20	1.50	1.55

Temperature coefficient 温度因子

Temperature(°C)	+40	+55	+70	+85	+105
Factor	2.7	2.5	2.1	1.7	1.0

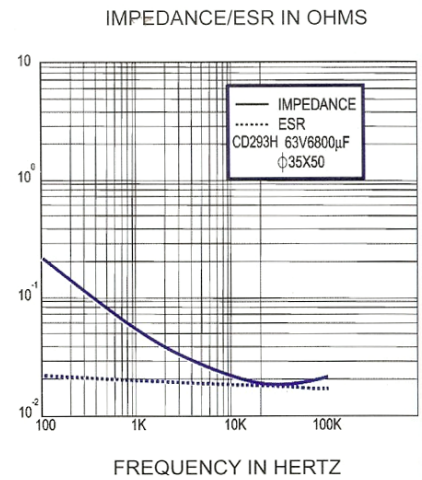
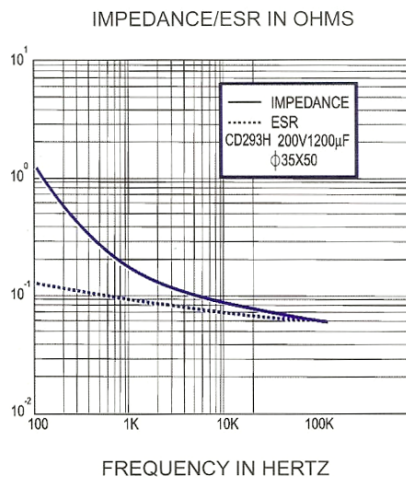
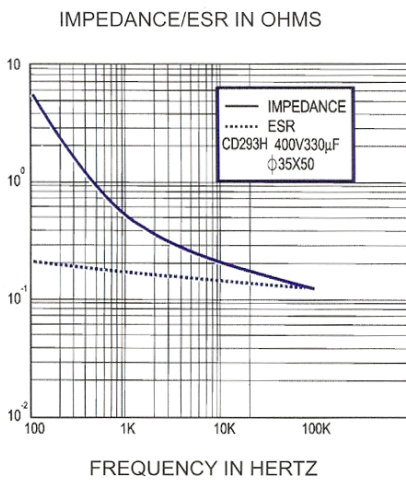
STANDARD RATINGS 额定技术参数

WV(V)	10		16		25		35		50		63		80		100	
	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流	Cap	Ripple 纹波电流
	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms
22X25	6800	1.5	4700	1.4	3300	1.3	2200	1.1	1200	0.96	820	0.92	560	0.76	390	0.64
22X30	10000	1.9	6800	1.8	4700	1.6	2700	1.3	1800	1.2	1200	1.2	820	0.96	560	0.80
22X35	12000	2.1	8200	2.0	5600	1.8	3900	1.6	2200	1.4	1500	1.3	1000	1.1	680	0.92
22X40	15000	2.5	10000	2.3	6800	2.0	4700	1.9	2700	1.6	1800	1.5	1200	1.2	820	1.0
22X50	18000	2.8	15000	2.9	10000	2.6	6800	2.4			2200	1.7	1800	1.6	1200	1.3
25X25	8200	1.7	6800	1.8	4700	1.6	3300	1.3	1800	1.2	1200	1.1	820	0.96	560	0.80
25X30	12000	2.1	10000	2.2	5600	1.8	3900	1.6	2700	1.5	1500	1.3	1000	1.1	680	0.92
25X35	15000	2.5	12000	2.5	8200	2.2	5600	2.0	3300	1.8	1800	1.5	1500	1.4	1000	1.1
25X40	18000	2.8	15000	2.9	10000	2.6	6800	2.3					1800	1.6		
25X50			18000	3.3	12000	2.9	8200	2.7	5600	2.5	3300	2.2	2200	1.8	1500	1.5
30X25	12000	2.2	10000	2.3	6800	2.0	4700	1.9	2700	1.6	1500	1.4	1200	1.3	820	1.0
30X30	18000	2.8	12000	2.6	8200	2.3	5600	2.1	3300	1.8	2200	1.7	1500	1.5	1000	1.2
30X35	22000	3.2	18000	3.3	12000	2.9	8200	2.9	4700	2.3	2700	2.0	1800	1.6	1200	1.4
30X40			22000	3.7	15000	3.3	10000	3.0	5600	2.5	3300	2.3	2200	1.9	1500	1.6
30X50					18000	3.8	12000	3.4	6800	2.9	4700	2.8	3300	2.3	2200	2.0
35X25	15000	2.6	12000	2.7	8200	2.4	5600	2.2	3300	1.8	2200	1.8	1500	1.5	1000	1.3
35X30	22000	3.3	18000	3.4	12000	3.0	8200	2.8	4700	2.4	2700	2.1	2200	1.9	1200	1.4
35X35			22000	3.9	15000	3.5	10000	3.1	5600	2.7			2700	2.2	1800	1.8
35X40					18000	3.9	12000	3.5	6800	3.0	4700	2.9	3300	2.4	2200	2.0
35X50							18000	4.5	10000	3.8	6800	3.6	4700	3.2	2700	2.3



WV(V) Size øDxL (mm)	160		180		200		250		315		350		400	
	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流	Cap	Ripple 纹波 电流
	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms	μF	Arms
22X25	180	0.65	180	0.65	150	0.60	100	0.45	56	0.34	56	0.37	39	0.32
22X30	270	0.83	220	0.75	220	0.76	150	0.58	82	0.43	82	0.47	56	0.39
22X35	330	0.94	270	0.66	270	0.87	180	0.65	120	0.53	100	0.53	68	0.45
22X40	390	1.1	390	1.1	330	0.99	220	0.75	150	0.61	120	0.60	82	0.51
22X50	560	1.3	470	1.2	470	1.2	330	0.96	180	0.71	180	0.78	150	0.64
25X25	270	0.82	220	0.75	220	0.76	150	0.58	82	0.42	68	0.43	56	0.40
25X30	390	1.0	330	0.96	270	0.87	220	0.73	120	0.53	100	0.54	68	0.46
25X35	470	1.2	390	1.1	390	1.1	270	0.83	150	0.62	120	0.61	100	0.57
25X40	560	1.3	470	1.2	470	1.3	330	0.95	-	-	180	0.77	120	0.63
25X50	820	1.7	680	1.5	560	1.4	470	1.2	270	0.89	220	0.89	150	0.75
30X25	390	1.1	330	1.0	270	0.92	220	0.77	120	0.56	100	0.57	82	0.53
30X30	560	1.3	470	1.2	390	1.1	270	0.88	180	0.71	150	0.72	100	0.61
30X35	680	1.5	560	1.4	560	1.4	390	1.1	220	0.80	180	0.82	150	0.77
30X40	820	1.7	680	1.6	680	1.6	470	1.2	270	0.92	220	0.93	180	0.87
30X50	1000	2.0	1000	2.0	820	1.8	560	1.4	390	1.20	330	1.2	220	1.0
35X25	470	1.3	390	1.2	390	1.2	270	0.93	180	0.74	150	0.77	100	0.65
35X30	680	1.6	560	1.5	560	1.5	390	1.2	220	0.84	220	0.97	150	0.83
35X35	820	1.8	820	1.8	680	1.7	470	1.3	330	1.1	270	1.1	180	0.93
30X40	1000	2.0	1000	2.1	820	1.9	560	1.5	390	1.2	330	1.3	220	1.1
35X50	1500	2.6	1200	2.4	1200	2.4	820	1.9	470	1.4	470	1.6	330	1.3

TYPICAL CURVES 典型曲线





CD135 series

Load life 2000 hours at 85°C

负荷寿命 85°C 2000 小时

High ripple current

高纹波电流

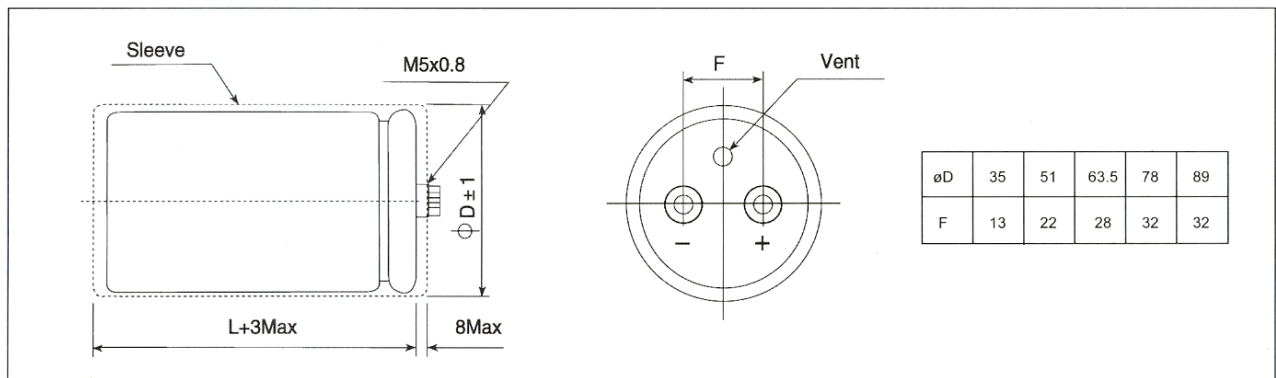
Used for computers, communication powers and Inverters

用于计算机、通讯电源和变频器

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性	
Operating Temperature Range(°C) 工作温度范围	-40~+85°C(315WV~450WV, -25°C~85°C)	
Capacitance Tolerance(20°C, 120Hz) 容量偏差	± 20%	
Leakage Current 漏电流	0.02CV or 5mA whichever is smaller. (at 20°C, 5 minutes) C:Nominal Capacitance 标准容量(μF) 0.02CV 或 5mA 取最小值(5分钟, 20°C) V:Rated Voltage 额定电压 (V)	
Dissipation Factor(20°C, 120Hz) 损耗角正切值	See Standard Ratings Table 见额定技术参数表	
Load Life (85°C) 耐久性	Time 时间	2000 hours
	Leakage current 漏电流	Not more than the specified value 不大于规定值
	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 以内
	Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%
Shelf Life (85°C) 高温贮存	Time 时间	1000 hours
	Leakage current 漏电流	Not more than the specified value 不大于规定值
	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 以内
	Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%

DIMENSIONS (mm) 外形尺寸





CASE CODE_(mm) 尺寸代码

∅D \ L	58	63	72	80	90	100	115	120	130	140	160
35	A5	A6	A7	A8	A9	A10	A11	A12	-	-	-
51	-	C6	C7	C8	C9	C10	C11	C12	C13	-	-
63.5	-	-	D7	D8	D9	D10	D11	D12	D13	D14	-
76	-	-	-	E8	E9	E10	E11	E12	E13	E14	E16
89	-	-	-	F8	F9	F10	F11	F12	F13	F14	F16

MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

Freq(Hz)	Rated Voltage(V)							
	50	120	300	1K	3K	5K	10K	20K
10-50	0.95	1	1.04	1.10	1.12	1.13	1.15	1.15
63-100	0.95	1	1.06	1.06	1.20	1.25	1.30	1.363
160-200	0.90	1	1.10	1.20	1.35	1.40	1.50	1.55
250-450	0.80	1	1.10	1.20	1.35	1.40	1.50	1.55

Temperature coefficient 温度因子

Rated voltage(V)	Temperature(°C)			
	+40	+55	+70	+85
10-100	2.1	1.8	1.5	1
160-450	2.6	2.2	1.7	1

STANDARD RATINGS 额定技术参数

Cap(μF)	VV(V)																										
	10								16								25										
15000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A5	0.50	3.7	-	-	-	-	-	-		
18000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A5	0.50	4.1	-	-	-	-	-	-		
22000	-	-	-	-	-	-	-	-	A5	0.60	4.1	-	-	-	-	-	A5	0.50	4.5	-	-	-	-	-	-		
27000	-	-	-	-	-	-	-	-	A5	0.60	4.5	-	-	-	-	-	A5	0.50	5.0	-	-	-	-	-	-		
33000	A5	0.80	4.3	-	-	-	-	-	A5	0.60	5.0	-	-	-	-	-	A6	0.50	5.9	-	-	-	-	-	-		
39000	A5	0.80	4.7	-	-	-	-	-	A6	0.60	5.9	-	-	-	-	-	A7	0.50	6.7	C6	0.80	6.0	-	-	-		
47000	A5	0.80	5.2	-	-	-	-	-	A6	0.60	6.4	-	-	-	-	-	A8	0.50	7.7	C6	0.80	6.6	-	-	-		
56000	A6	0.80	6.1	-	-	-	-	-	A7	0.60	7.3	-	-	-	-	-	A9	0.60	7.9	C6	0.80	7.2	-	-	-		
68000	A6	0.80	6.7	-	-	-	-	-	A8	0.60	8.4	-	-	-	-	-	A10	0.60	9.1	C6	0.80	7.9	-	-	-		
82000	A7	0.80	7.7	-	-	-	-	-	A9	0.80	8.3	-	-	-	-	-	A11	0.60	10.3	C7	0.80	9.0	-	-	-		
100000	A8	0.80	8.8	C6	1.50	7.0	-	-	A10	0.80	9.5	C6	1.00	8.6	-	-	C8	0.80	10.4	D7	1.0	9.9	-	-	-		
120000	A9	0.80	10.0	C6	1.50	7.7	-	-	A11	0.80	10.9	C6	1.00	9.4	-	-	C9	0.80	11.7	D7	1.0	10.8	-	-	-		
150000	A11	1.00	10.8	C6	1.50	8.6	-	-	C8	1.0	11.3	D7	1.50	9.9	-	-	C11	0.80	14.1	D8	1.0	12.5	-	-	-		
180000	A12	1.00	12.0	C7	1.50	9.8	-	-	C9	1.0	12.8	D7	1.50	10.8	-	-	C12	0.80	15.7	D9	1.0	14.2	E8	1.20	13.5		
220000	C8	1.50	12.0	D7	2.00	10.4	-	-	C11	1.0	15.3	D8	1.50	12.3	-	-	D10	1.00	16.1	E8	1.20	14.9	-	-	-		
270000	C9	1.50	12.8	D7	2.00	11.5	-	-	C13	1.0	16.8	D9	1.50	14.2	E8	1.50	14.8	D11	1.00	18.6	E9	1.20	17.1	F8	1.20	17.5	
330000	C11	1.50	15.3	D8	2.00	13.1	-	-	D11	1.5	17.6	E8	1.50	16.3	-	-	D14	1.00	21.9	E11	1.20	20.3	F8	1.20	19.4		
390000	C13	1.50	17.3	D9	2.00	14.7	E8	2.00	15.4	D11	1.5	18.3	E9	1.50	18.4	F8	2.00	16.3	E11	1.20	22.0	F9	1.20	21.8	-	-	-
470000	D10	2.00	16.7	E8	2.00	16.9	-	-	D14	1.5	21.3	E11	1.50	21.6	D8	2.00	17.9	E14	1.20	25.6	F10	1.20	24.6	-	-	-	
560000	D11	2.00	19.0	E9	2.00	19.1	F8	2.50	17.5	E11	1.5	23.6	F9	2.00	20.2	-	-	F11	1.20	27.9	-	-	-	-	-	-	
680000	D13	2.00	21.7	E10	2.00	21.6	F8	2.50	19.3	E14	1.5	27.1	F11	2.00	23.8	-	-	F14	1.20	32.5	-	-	-	-	-	-	
820000	E11	2.00	24.7	F9	2.00	21.9	-	-	F13	2.00	27.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



WV(V) Cap(μF)	35										50										63									
3900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A5	0.25	2.7	-	-	-	-	-	-		
4700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A5	0.25	3.0	-	-	-	-	-	-	
5600	-	-	-	-	-	-	-	-	-	A5	0.30	3.0	-	-	-	-	-	-	-	-	A5	0.25	3.3	-	-	-	-	-	-	
6800	-	-	-	-	-	-	-	-	-	A5	0.30	3.3	-	-	-	-	-	-	-	-	A5	0.25	3.6	-	-	-	-	-	-	
8200	-	-	-	-	-	-	-	-	-	A5	0.30	3.6	-	-	-	-	-	-	-	-	A6	0.25	4.3	-	-	-	-	-	-	
10000	A5	0.40	3.4	-	-	-	-	-	-	A5	0.30	4.0	-	-	-	-	-	-	-	-	A7	0.25	4.9	-	-	-	-	-	-	
12000	A5	0.40	3.7	-	-	-	-	-	-	A6	0.30	4.7	-	-	-	-	-	-	-	-	A8	0.25	5.6	C6	0.40	4.7	-	-	-	
15000	A5	0.40	4.2	-	-	-	-	-	-	A7	0.30	5.5	C6	0.50	4.7	-	-	-	-	-	A9	0.30	5.9	C6	0.40	5.3	-	-	-	
18000	A6	0.40	4.9	-	-	-	-	-	-	A8	0.30	6.2	C6	0.50	5.2	-	-	-	-	-	A10	0.30	6.7	C6	0.40	5.8	-	-	-	
22000	A7	0.40	5.7	-	-	-	-	-	-	A9	0.40	6.2	C6	0.50	6.3	-	-	-	-	-	A11	0.30	7.8	C6	0.40	6.4	-	-	-	
27000	A7	0.40	6.3	C6	0.60	5.8	-	-	-	A10	0.40	7.1	C6	0.50	6.3	-	-	-	-	-	C7	0.40	7.4	-	-	-	-	-	-	
33000	A8	0.40	7.2	C6	0.60	6.4	-	-	-	A11	0.40	8.2	C7	0.50	7.3	-	-	-	-	-	C8	0.40	8.4	D7	0.50	8.0	-	-	-	
39000	A9	0.50	7.3	C6	0.60	6.9	-	-	-	C8	0.50	8.1	D7	0.60	8.0	-	-	-	-	-	C9	0.40	9.5	D7	0.50	8.7	-	-	-	
47000	A11	0.50	8.7	C7	0.60	7.9	-	-	-	C9	0.50	9.3	D7	0.60	8.8	-	-	-	-	-	C11	0.40	11.3	D8	0.50	9.9	-	-	-	
56000	C7	0.60	8.6	-	-	-	-	-	-	C10	0.50	10.5	D7	0.60	9.6	-	-	-	-	-	C13	0.40	12.8	D9	0.50	11.2	E8	0.50	11.7	
68000	C8	0.60	9.8	D7	0.80	9.1	-	-	-	C11	0.50	12.0	D8	0.60	10.9	-	-	-	-	-	D10	0.50	12.7	E8	0.50	12.9	-	-	-	
82000	C10	0.60	11.6	D7	0.80	10.0	-	-	-	C13	0.50	13.7	D9	0.60	12.3	E8	0.60	12.9	D11	0.50	14.5	E9	0.50	14.6	F8	0.60	13.7	-	-	
100000	C11	0.60	13.3	D8	0.80	11.4	-	-	-	D11	0.60	14.7	E9	0.60	14.7	F8	0.80	13.1	D13	0.50	16.7	E10	0.50	16.6	F8	0.60	15.1	-	-	
120000	C12	0.60	14.8	D9	0.80	12.9	E8	1.00	12.1	D13	0.60	16.7	E10	0.60	16.6	D8	0.80	16.3	E11	0.50	18.9	F9	0.60	17.1	-	-	-	-	-	
150000	D10	0.80	14.9	E8	1.00	13.5	-	-	-	E11	0.60	19.3	F9	0.80	16.5	-	-	-	-	E14	0.50	22.4	F10	0.60	19.6	-	-	-	-	
180000	C11	0.80	17.0	E9	1.00	15.3	F8	1.00	15.7	E13	0.60	21.9	F10	0.80	18.6	-	-	-	-	F11	0.60	22.4	-	-	-	-	-	-	-	
220000	C14	0.80	20.0	E11	1.00	18.1	F9	1.00	17.9	F11	0.80	21.4	-	-	-	-	-	-	-	F14	0.60	26.2	-	-	-	-	-	-	-	
270000	E12	1.0	20.3	F10	1.00	20.4	-	-	-	F13	0.80	24.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
330000	E14	1.0	23.5	F11	1.00	23.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
390000	F13	1.0	26.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
470000	F14	1.0	29.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

_____ Ripple Current(Ams)85°C120Hz
 _____ tanδ (20°C 120Hz)
 _____ Case code



STANDARD RATINGS 额定技术参数

WV(V) Cap(μF)	80									100								
	1800	-	-	-	-	-	-	-	-	-	A5	0.25	1.9	-	-	-	-	-
2200	-	-	-	-	-	-	-	-	-	A5	0.25	2.1	-	-	-	-	-	-
2700	-	-	-	-	-	-	-	-	-	A5	0.25	2.3	-	-	-	-	-	-
3300	A5	0.25	2.5	-	-	-	-	-	-	A5	0.25	2.6	-	-	-	-	-	-
3900	A5	0.25	2.8	-	-	-	-	-	-	A6	0.25	3.0	-	-	-	-	-	-
4700	A5	0.25	3.0	-	-	-	-	-	-	A7	0.25	3.5	-	-	-	-	-	-
5600	A6	0.25	3.6	-	-	-	-	-	-	A8	0.25	3.9	C6	0.25	4.2	-	-	-
6800	A6	0.25	3.9	-	-	-	-	-	-	A9	0.25	4.5	D6	0.25	7.6	-	-	-
8200	A7	0.25	4.5	-	-	-	-	-	-	A10	0.25	5.1	D6	0.25	5.1	-	-	-
10000	A9	0.25	5.2	C6	0.30	5.0	-	-	-	A11	0.25	5.9	C6	0.25	5.6	-	-	-
12000	A9	0.25	5.9	C6	0.30	5.5	-	-	-	C7	0.25	6.4	-	-	-	-	-	-
15000	A10	0.25	6.8	C6	0.30	6.2	-	-	-	C8	0.25	7.0	D7	0.30	7.0	-	-	-
18000	A11	0.25	7.8	C7	0.30	7.0	-	-	-	C9	0.25	8.3	D7	0.30	7.7	-	-	-
22000	C8	0.30	8.0	D7	0.30	7.3	-	-	-	C11	0.25	10.0	D8	0.3	8.7	-	-	-
27000	C9	0.30	9.2	D7	0.40	8.1	-	-	-	C13	0.25	11.5	D10	0.30	10.3	E8	0.35	9.7
33000	C10	0.30	10.5	D8	0.40	9.3	-	-	-	D11	0.25	11.9	E9	0.35	11.1	F8	0.35	11.4
39000	C11	0.30	12.0	D9	0.40	10.4	E8	0.40	10.9	D13	0.25	13.4	E10	0.35	12.4	F8	0.35	12.3
47000	C13	0.30	13.6	D10	0.40	10.0	E8	0.40	11.9	E11	0.35	14.2	F9	0.35	14.0	-	-	-
56000	D11	0.40	13.4	E9	0.40	13.5	F8	0.40	13.8	E1	0.35	16.0	F10	0.35	15.7	-	-	-
68000	D13	0.40	15.4	E10	0.40	10.0	F8	0.40	15.2	E16	0.35	18.8	F11	0.35	18.0	-	-	-
82000	E11	0.40	17.5	F9	0.40	17.3	-	-	-	F13	0.35	20.5	-	-	-	-	-	-
100000	E14	0.40	20.5	F10	0.40	19.6	-	-	-	F16	0.35	24.0	-	-	-	-	-	-
120000	F11	0.40	22.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150000	F14	0.40	26.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

WV(V) Cap(μF)	160									180									200								
	1000	-	-	-	-	-	-	-	-	-	A5	0.25	1.9	-	-	-	-	-	-	A5	0.25	1.9	-	-	-	-	-
1200	A5	0.25	2.0	-	-	-	-	-	-	A6	0.25	2.2	-	-	-	-	-	-	A6	0.25	2.2	-	-	-	-	-	-
1500	-	-	-	-	-	-	-	-	-	A6	0.25	2.5	-	-	-	-	-	-	A7	0.25	2.6	C6	0.25	2.9	-	-	-
1800	A6	0.25	2.7	-	-	-	-	-	-	A7	0.25	2.8	C6	0.25	3.1	-	-	-	A8	0.25	3.0	C6	0.25	3.2	-	-	-
2200	A7	0.25	3.1	C6	0.25	3.4	-	-	-	A8	0.25	3.2	C6	0.25	3.4	-	-	-	A9	0.25	3.4	C6	0.25	3.5	-	-	-
2700	A8	0.25	3.5	C6	0.25	3.8	-	-	-	A9	0.25	3.7	C6	0.25	3.8	-	-	-	A10	0.25	3.9	C6	0.25	3.9	-	-	-
3300	A10	0.25	4.2	C6	0.25	4.2	-	-	-	A11	0.25	4.5	C6	0.25	4.2	-	-	-	A11	0.25	4.5	C7	0.25	4.5	-	-	-
3900	A11	0.25	4.8	C6	0.25	4.5	-	-	-	C7	0.25	4.8	-	-	-	-	-	-	C8	0.25	5.0	D7	0.25	5.3	-	-	-
4700	C7	0.25	5.2	-	-	-	-	-	-	C8	0.25	5.4	D7	0.25	5.7	-	-	-	C9	0.25	5.7	D7	0.25	6.4	-	-	-
5600	C8	0.25	5.9	D7	0.25	6.2	-	-	-	C9	0.25	6.1	D7	0.25	6.3	-	-	-	C10	0.25	6.4	D7	0.25	6.4	-	-	-
6800	C9	0.25	6.7	D7	0.25	6.8	-	-	-	C10	0.25	7.0	D7	0.25	6.9	-	-	-	C11	0.50	7.4	D8	0.25	7.3	E8	0.25	8.2
8200	C10	0.25	7.6	D7	0.25	7.5	-	-	-	C11	0.25	8.0	D8	0.25	8.1	E8	0.25	8.1	C13	0.25	8.4	D9	0.25	8.3	F8	0.25	9.4
10000	C11	0.25	8.8	D9	0.25	8.8	E8	0.25	8.8	C13	0.25	9.2	D10	0.25	9.2	E8	0.25	8.9	D11	0.25	9.8	E9	0.25	9.3	F8	0.25	10.2
12000	C13	0.25	10.0	D10	0.25	10.0	E8	0.25	9.7	D11	0.25	10.5	E9	0.25	10.1	F8	0.25	10.2	D13	0.25	11.2	E10	0.25	10.5	-	-	-
15000	D11	0.25	11.6	E9	0.25	11.2	F8	0.25	11.5	D13	0.25	12.2	E10	0.25	11.6	F8	0.25	11.5	E11	0.25	12.3	F9	0.25	11.8	-	-	-
18000	D13	0.25	13.2	E10	0.25	12.6	F8	0.25	12.6	E11	0.25	13.2	F9	0.25	13.3	-	-	-	E13	0.25	13.9	F10	0.25	11.3	-	-	-
22000	E11	0.25	14.5	F9	0.25	14.3	-	-	-	E14	0.25	15.5	F10	0.25	14.7	-	-	-	F11	0.25	15.3	-	-	-	-	-	-
27000	E14	0.25	17.0	F10	0.25	16.3	-	-	-	F11	0.25	17.0	-	-	-	-	-	-	F14	0.25	18.0	-	-	-	-	-	-
33000	F13	0.25	19.4	-	-	-	-	-	-	F14	0.25	19.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39000	F14	0.25	21.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



CD136 series

Load life of 2000 hours at 105°C

105°C 2000 小时负荷寿命

High ripple current

耐高纹波

Used for power supplies, general-purpose inverter

用于工业电源、变频器，通用型变频器

Terminal type: U type, Screw

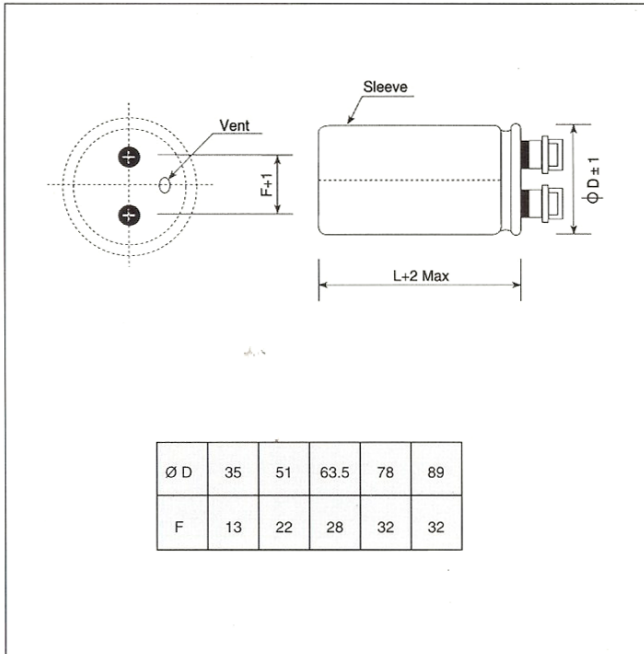
端子型式：可 U 型、螺柱

SPECIFICATIONS 特性说明

Item 项目	Characteristics 特性									
Rated Voltage Range(V) 额定电压范围	10~100	160~400								
Operating Temperature Range(°C) 工作温度范围	-40~+105	-25+105								
Capacitance Tolerance(20°C, 120Hz) 容量偏差	± 20%									
Leakage Current 漏电流	0.02CV or 5mA whichever is smaller. (at 20°C, after 5 minutes) C: Nominal Capacitance 标准容量(μF)	0.02CV or 5mA, 取较小值(5 分钟, 20°C) V: Rated Voltage 额定电压 (V)								
Dissipation Factor(20°C, 120Hz) 损耗角正切值	Tanδ shall not exceed the values shown in the table of STSNDSDR RATINGS Tan 不超过额定技术参数中的数值									
Temperature Stability(120Hz) 温度稳定性	10~100VDC: Capacitance at -40°C shall not be less than 60% of the 25°C value 10~100VDC: -40°C 条件下的容量值不低于 25°C 时容量值的 60% 160~400VDC: Capacitance at -25°C shall not be less than 70% of the 25°C value 160~400VDC: -25°C 条件下的容量值不低于 25°C 时容量值的 60%									
Load Life (105°C) 耐久性	<table border="1"> <tr> <td>Time 时间</td> <td>2000 hours</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200% of the specified value 不大于规定值的 200%</td> </tr> </table>		Time 时间	2000 hours	Leakage current 漏电流	Not more than the specified value 不大于规定值	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 以内	Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%
Time 时间	2000 hours									
Leakage current 漏电流	Not more than the specified value 不大于规定值									
Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 以内									
Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%									
Shelf Life (105°C) 高温贮存	<table border="1"> <tr> <td>Time 时间</td> <td>1000 hours</td> </tr> <tr> <td>Leakage current 漏电流</td> <td>Not more than the specified value 不大于规定值</td> </tr> <tr> <td>Capacitance change 容量变化</td> <td>Within ± 20% of the initial value. 在初始值的 ± 20% 以内</td> </tr> <tr> <td>Dissipation Factor 损耗角正切值</td> <td>Not more than 200% of the specified value 不大于规定值的 200%</td> </tr> </table>		Time 时间	1000 hours	Leakage current 漏电流	Not more than the specified value 不大于规定值	Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 以内	Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%
Time 时间	1000 hours									
Leakage current 漏电流	Not more than the specified value 不大于规定值									
Capacitance change 容量变化	Within ± 20% of the initial value. 在初始值的 ± 20% 以内									
Dissipation Factor 损耗角正切值	Not more than 200% of the specified value 不大于规定值的 200%									



DIMENSIONS(mm) 外形尺寸



MULTIPLIER FOR RIPPLE CURRENT 纹波电流倍乘因子

Frequency coefficient 频率因子

Frequency(Hz)	50.60	120	300	1K	10K
Factor	0.8	1.0	1.10	1.20	1.50

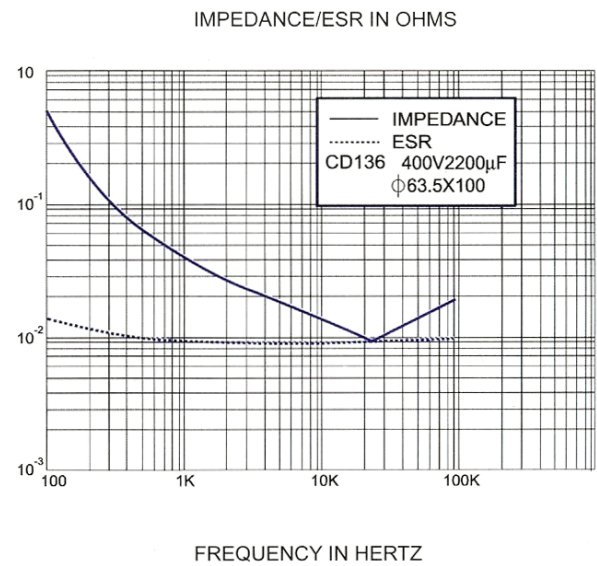
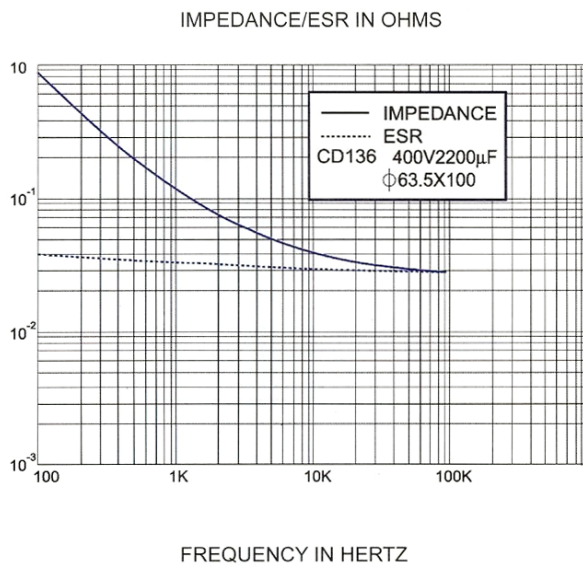
Temperature coefficient 温度因子

Temperature(°C)	+70	+85	+105w
Factor	2.1	1.7	1.0

CASE CODE (mm) 尺寸代码

	A5	A6	A8	A10	A12	C8	C10	C12
∅D:	35	35	35	35	35	50	50	50
L:	50	60	80	100	120	80	100	120
	D10	D12	E10	E12	E13	E14	F14	
∅D:	63.5	63.5	76	76	76	76	89	
L:	100	120	100	120	130	140	140	

TYPICAL CURVES 典型曲线





Aluminum Electrolytic Capacitors

VV(V) Cap(μF)	10			16			25			35			50			63			80			
	2200																		A5	2.4	0.15	
2700																	A5	2.3	0.20	A5	2.7	0.15
3300																	A5	2.5	0.20	A5	3.0	0.15
3900													A5	2.8	0.20	A5	2.8	0.20	A3	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	11.0	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	A5	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	0.46	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	C12	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																

tanδ (20°C 120Hz)

Ripple Current(Ams)105°C120Hz

Case code



WV(V) Cap(μF)	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	.9	0.10	
270									A5	0.80	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	A3	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	A6	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	0.10
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	1.7	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	C10	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				E12	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	D14	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	D14	10.4	0.15
8200	C8	6.4	0.15	D10	7.0	0.20	D12	7.6	0.20	E12	8.4	0.20	F14	11.4	0.15	F14	11.4	0.15			
100000	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																		

tan δ (20°C 120Hz)

Ripple Current(Ams)105°C120Hz

Case code