

CD293 Snap-in Terminal Type, 85°C自立型标准系列

CD292 Standard Series

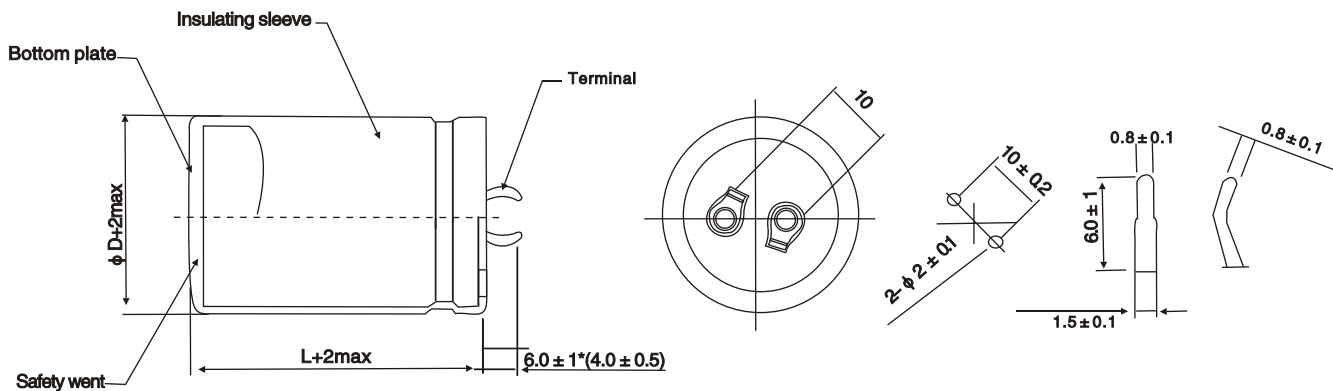
CD291

- Standard product, suited for use in filtering in switching power supplies circuit
- Load life of 2000 hours at 85°C
- 适用于各种工业电源中作滤波用
- 85°C寿命2000小时

■ Specifications

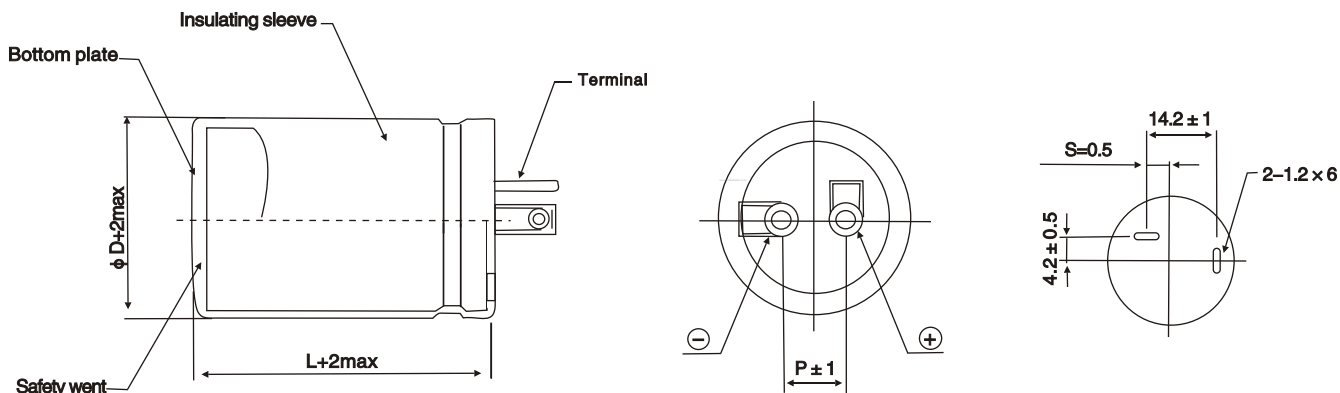
Item	Characteristics																								
Operating Temperature Range	-40°C~+85°C																								
Rated Voltage Range	10~500V.DC																								
Nominal Copacitance Range	56 μ F~68000 μ F																								
Capacitance Tolerance	M(± 20%) (20°C, 120Hz)																								
Leakage Current	$I \leq 0.02CV (\mu A)$ C:Nominal capacitance (μ F) V:Rated voltage(V) (20°C, after 5 minutes)																								
Dissipation Factor(Max)	<table border="1"> <thead> <tr> <th>WV</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>160~200</th> <th>250~400</th> <th>450~500</th> </tr> </thead> <tbody> <tr> <td>tan δ</td> <td>0.50</td> <td>0.50</td> <td>0.40</td> <td>0.40</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> <td>0.20</td> </tr> </tbody> </table> <p>(20°C, 120Hz)</p>	WV	10	16	25	35	50	63	80	100	160~200	250~400	450~500	tan δ	0.50	0.50	0.40	0.40	0.30	0.25	0.20	0.15	0.12	0.15	0.20
WV	10	16	25	35	50	63	80	100	160~200	250~400	450~500														
tan δ	0.50	0.50	0.40	0.40	0.30	0.25	0.20	0.15	0.12	0.15	0.20														
Low Temperature Stability (Impedance Ratio)	<table border="1"> <thead> <tr> <th>WV</th> <th>10</th> <th>16~160</th> <th>200~250</th> <th>315~400</th> <th>450~500</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>5</td> <td>4</td> <td>4</td> <td>8</td> <td>8</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>18</td> <td>15</td> <td>12</td> <td>12</td> <td>12</td> </tr> </tbody> </table>	WV	10	16~160	200~250	315~400	450~500	Z(-25°C)/Z(+20°C)	5	4	4	8	8	Z(-40°C)/Z(+20°C)	18	15	12	12	12						
WV	10	16~160	200~250	315~400	450~500																				
Z(-25°C)/Z(+20°C)	5	4	4	8	8																				
Z(-40°C)/Z(+20°C)	18	15	12	12	12																				
Load Life	<p>Afeter 2000 hours application of rated voltage with rated current ripple at 85°C, the capacitors shall meet the following requirement.</p> <table border="1"> <tbody> <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 initial specified value.</td> </tr> <tr> <td>Leakage current</td> <td>Not more than the initial specified value</td> </tr> </tbody> </table>	Capacitance change	Within ± 20% of the initial value.	Dissipation factor	Not more than 200% of the initial specified value.	Leakage current	Not more than the initial specified value																		
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Dissipation factor	Not more than 200% of the initial specified value.																								
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Shelf Life	After storage for 500 hours at +85°C, the capacitors shall meet the requirement of load life above.																								
Rated Ripple Current & Frequency Multipliers	<table border="1"> <thead> <tr> <th>WV \ Freq.</th> <th>50Hz</th> <th>120Hz</th> <th>1Kz</th> <th>10kHz</th> <th>20kHz~</th> </tr> </thead> <tbody> <tr> <td>≤50</td> <td>0.95</td> <td>1.00</td> <td>1.10</td> <td>1.15</td> <td>1.15</td> </tr> <tr> <td>63~100</td> <td>0.95</td> <td>1.00</td> <td>1.16</td> <td>1.30</td> <td>1.33</td> </tr> <tr> <td>≥160</td> <td>0.90</td> <td>1.00</td> <td>1.20</td> <td>1.50</td> <td>1.55</td> </tr> </tbody> </table>	WV \ Freq.	50Hz	120Hz	1Kz	10kHz	20kHz~	≤50	0.95	1.00	1.10	1.15	1.15	63~100	0.95	1.00	1.16	1.30	1.33	≥160	0.90	1.00	1.20	1.50	1.55
WV \ Freq.	50Hz	120Hz	1Kz	10kHz	20kHz~																				
≤50	0.95	1.00	1.10	1.15	1.15																				
63~100	0.95	1.00	1.16	1.30	1.33																				
≥160	0.90	1.00	1.20	1.50	1.55																				
Rated Ripple Current& Temperature Multipliers	<table border="1"> <thead> <tr> <th colspan="2">Temperature</th> <th>+40°C</th> <th>+55°C</th> <th>+70°C</th> <th>+85°C</th> </tr> </thead> <tbody> <tr> <th rowspan="2">WV</th> <td>< 160</td> <td>2.1</td> <td>2.1</td> <td>1.5</td> <td>1.0</td> </tr> <tr> <td>≥160</td> <td>1.7</td> <td>1.5</td> <td>1.3</td> <td>1.0</td> </tr> </tbody> </table>	Temperature		+40°C	+55°C	+70°C	+85°C	WV	< 160	2.1	2.1	1.5	1.0	≥160	1.7	1.5	1.3	1.0							
Temperature		+40°C	+55°C	+70°C	+85°C																				
WV	< 160	2.1	2.1	1.5	1.0																				
	≥160	1.7	1.5	1.3	1.0																				

■ DRAWING
CD293 Series



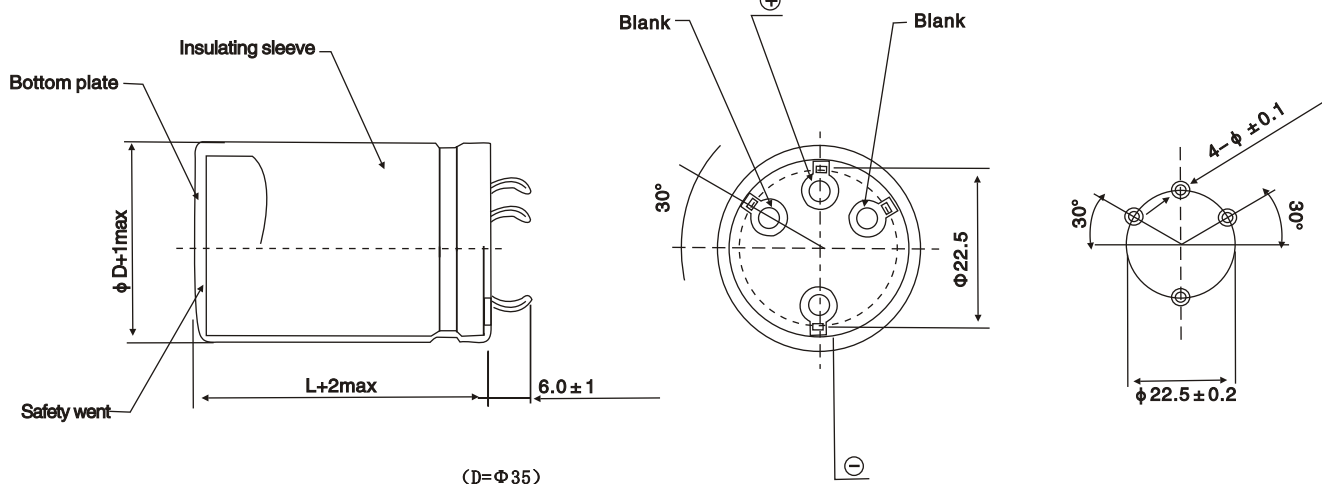
*Shorter terminal (4.0 ± 0.5) is also available upon request.

■ CD291 Series



(D= $\phi 30$, $\phi 35$)

■ CD292 Series



(D= $\phi 35$)

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■ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV φ D μ F	10				16				25			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
5600									22 × 25 2.65			
6800									22 × 30 3.06	25.4 × 25 3.15		
8200									22 × 35 3.45	25.4 × 30 3.57		
10000					22 × 25 3.32				22 × 40 3.95	25.4 × 30 3.89		
12000	22 × 25 3.31				22 × 30 3.55	25.4 × 25 3.89			22 × 45 4.41	25.4 × 35 4.37	30 × 25 3.99	
15000	22 × 30 3.82	25.4 × 25 3.39			22 × 35 4.29	25.4 × 30 4.45	30 × 25 4.56		22 × 50 4.94	25.4 × 40 4.94	30 × 30 4.50	
18000	22 × 35 4.28	25.4 × 25 4.17			22 × 40 4.77	25.4 × 35 4.96	30 × 30 5.10			25.4 × 45 5.45	30 × 35 5.10	
22000	22 × 40 4.79	25.4 × 30 4.71	30 × 25 4.83		22 × 50 5.51	25.4 × 40 5.51	30 × 30 5.39				30 × 35 5.38	35 × 30 5.51
27000	22 × 45 5.30	25.4 × 35 5.26	30 × 30 5.41			25.4 × 45 6.06	30 × 35 5.98	35 × 25 5.80			30 × 45 6.22	35 × 35 6.12
33000	22 × 50 5.82	25.4 × 40 5.81	30 × 30 5.69	35 × 25 5.81			30 × 40 6.56	35 × 30 6.41			30 × 50 6.82	35 × 40 6.74
39000		25.4 × 45 6.31	30 × 35 6.22	35 × 30 6.38			30 × 45 7.08	35 × 35 6.96				35 × 45 7.35
47000		25.4 × 50 6.83	30 × 40 6.78	35 × 30 6.62			30 × 50 7.62	35 × 40 7.54				
56000			30 × 45 7.31	35 × 35 7.18				35 × 45 8.08				
68000				35 × 40 7.76				35 × 50 8.63	← Case size φ D×L(mm) ← Rated ripple current(Arms)(85°C,120Hz)			

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■ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV μF	35				50				63			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
1200												
1500												
1800									22×25 2.20			
2200									22×30 2.50	25.4×25 2.58		
2700									22×35 2.94	25.4×30 3.04		
3300					22×30 2.97	25.4×25 3.06			22×35 3.14	25.4×30 3.26	30×25 3.34	
3900									22×40 3.60	25.4×35 3.74	30×30 3.85	
4700	22×30 3.06	25.4×25 2.98			22×40 3.83	25.4×35 3.98	30×25 3.86	35×25 4.19	22×50 4.19	25.4×40 4.19	30×35 4.10	35×30 4.19
5600	22×35 3.28	25.4×30 3.39			22×45 4.26	25.4×40 4.44	30×30 4.35	35×25 4.44		25.4×45 4.65	30×35 4.58	35×30 4.70
6800	22×40 3.73	25.4×30 3.67	30×25 3.76		22×50 4.77	25.4×45 4.76	30×35 4.92	35×30 5.04		25.4×50 5.20	30×40 5.16	35×30 5.04
8200	22×45 4.13	25.4×35 4.10	30×30 4.22			25.4×45 5.43	30×40 5.38	35×30 5.26			30×45 5.62	35×35 5.53
10000	22×50 4.68	25.4×40 4.68	30×30 4.58				30×45 6.07	35×35 5.97			30×50 6.32	35×40 6.25
12000		25.4×45 5.18	30×35 5.11	35×30 5.24			30×50 6.62	35×40 6.55				35×45 6.83
15000			30×40 5.72	35×35 5.88				35×45 7.20				
18000			30×45 6.28	35×40 6.46				35×50 7.74				
22000				35×45 7.07	← Case size φ DxL(mm) ← Rated ripple current(A rms)(85°C,120Hz)							

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■ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV μF	80				100				160			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
220									22×20 1.01			
270									22×25 1.20	25.4×20 1.32		
330									22×25 1.33	25.4×20 1.36		
390									22×25 1.45	25.4×25 1.59	30×20 1.62	
470									22×30 1.69	25.4×25 1.75	30×20 1.78	
560									22×35 1.96	25.4×30 2.03	30×25 2.08	35×20 2.12
680									22×40 2.27	25.4×30 2.23	30×25 2.29	35×20 2.33
820									22×45 2.61	25.4×35 2.59	30×30 2.67	35×25 2.73
1000									22×50 3.01	25.4×40 3.01	30×30 2.95	35×25 3.01
1200	22×25 2.24				22×30 2.39	25.4×25 2.46				25.4×45 3.23	30×35 3.18	35×30 3.26
1500	22×30 2.67				22×35 2.83	25.4×30 2.93	30×25 3.00				30×40 3.73	35×35 3.83
1800	22×30 2.92	25.4×25 3.01			22×40 2.26	25.4×35 3.39	30×30 3.49					35×40 4.39
2200	22×35 3.25	25.4×30 3.36	30×25 3.45		22×45 3.58	25.4×40 3.74	30×30 3.66					
2700	22×40 3.79	25.4×35 3.94	30×30 4.05			25.4×45 4.33	30×35 4.27	30×30 4.37				
3300	22×45 4.18	25.4×30 4.36	30×30 4.27			25.4×50 4.76	30×40 4.72	35×35 4.85				
3900	22×50 4.75	25.4×45 4.96	30×35 4.89				30×45 5.36	35×35 5.27				
4700		25.4×50 5.44	30×40 5.39	35×30 5.27			35×50 5.86	35×40 5.80				
5600			30×45 5.91	35×35 5.81				35×45 6.34				
6800				35×40 5.46								
8200				35×45 6.91	← Case size φDxL(mm) ← Rated ripple current(A rms)(85°C,120Hz)							

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■ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV φD μF	200				250				315			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
100									22×20 0.68			
120									22×25 0.80	25.4×20 0.82		
150					22×25 0.90	25.4×20 0.92			22×30 0.96	25.4×25 0.99	30×20 1.01	
180	22×20 0.91				22×25 0.90	25.4×20 1.01			22×35 1.11	25.4×30 1.15	30×25 1.18	35×20 1.20
220	22×25 1.09	25.4×20 1.11			22×25 1.09	25.4×25 1.19	30×20 1.22		22×40 1.29	25.4×30 1.27	30×25 1.30	35×20 1.33
270	22×25 1.29	25.4×25 1.32	30×20 1.35		22×30 1.28	25.4×25 1.32	30×20 1.35		22×45 1.50	25.4×35 1.49	30×30 1.53	35×25 1.56
330	22×30 1.42	25.4×25 1.46	30×20 1.49		22×35 1.50	25.4×30 1.56	30×25 1.60	35×20 1.62	22×50 1.73	25.4×40 1.73	30×35 1.78	35×30 1.83
390	22×30 1.54	25.4×25 1.59	30×25 1.74	35×20 1.77	22×40 1.72	25.4×30 1.69	35×25 1.73	35×20 1.77		25.4×45 1.97	30×35 1.94	35×30 1.99
470	22×35 1.79	25.4×30 1.86	30×25 1.90	35×20 1.94	22×45 1.98	25.4×35 1.96	30×30 2.02	35×25 2.06			30×40 2.23	35×35 2.29
560	22×40 2.06	25.4×35 2.14	30×25 2.08	35×20 2.25	22×50 2.26	25.4×40 2.25	30×30 2.20	35×25 2.25				35×40 2.62
680	22×45 2.38	25.4×40 2.48	30×30 2.43	35×25 2.48		25.4×45 2.60	30×35 2.56	35×30 2.62				35×45 3.01
820	22×50 5.73	25.4×45 2.85	30×35 2.81	35×30 2.88			30×40 2.95	35×35 3.03				35×50 3.44
1000			30×40 2.26	35×30 3.18			30×45 3.40	35×40 3.50				
1200			30×45 3.49	35×35 3.43				35×45 3.74				
1500			30×50 4.06	35×40 4.01				35×50 4.35				
1800				35×45 4.58	← Case size φDxL(mm) ← Rated ripple current(A rms)(85°C,120Hz)							

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■ DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV φD μF	350				400				450				500			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
56									22×20 0.39							
68					22×20 0.56				22×25 0.46	25.4×20 0.47			22×30 0.49			
82	22×20 0.62				22×25 0.66	25.4×20 0.68			22×35 0.54	25.4×25 0.56	30×20 0.57		22×35 0.57	25.4×30 0.59		
100	22×25 0.73	25.4×20 0.75			22×30 0.78	25.4×25 0.81	30×20 0.82		22×35 0.63	25.4×30 0.65	30×25 0.67	35×20 0.68	22×40 0.67	25.4×35 0.69		
120	22×30 0.86	25.4×25 0.88	30×20 0.90		22×30 0.86	25.4×25 0.88	30×20 0.90		22×40 0.73	25.4×35 0.76	30×25 0.73	35×20 0.75		25.4×40 0.80		
150	22×35 1.01	25.4×30 1.05	30×20 1.01		22×35 1.01	25.4×30 1.05	30×25 1.08	35×20 1.09	22×50 0.89	25.4×40 0.89	30×30 0.87	35×25 0.89			30×35 0.92	
180	22×40 1.17	25.4×35 1.21	30×25 1.18	35×20 1.20	22×40 1.17	25.4×35 1.21	30×25 1.18	35×25 1.28		25.4×45 1.02	30×35 1.01	35×25 0.98			30×40 1.06	
220	22×45 1.35	25.4×35 1.34	30×30 1.38	35×25 1.41	22×45 1.35	25.4×40 1.41	30×30 1.38	35×25 1.41		25.4×50 1.18	30×40 1.17	35×30 1.14			30×45 1.22	
270		25.4×45 1.64	30×35 1.61	35×25 1.65		25.4×45 1.64	30×35 1.61	35×30 1.65			30×45 1.35	35×35 1.33				35×45 1.45
330		25.4×50 1.89	30×40 1.87	35×30 1.83		25.4×50 1.89	30×40 1.87	35×30 1.83			30×50 1.55	35×40 1.54				35×50 1.66
390			30×45 2.12	35×35 2.09			30×45 2.12	35×35 2.09				35×45 1.74				
470			30×50 2.43	35×40 2.40			30×50 2.43	35×40 2.40				35×45 1.79				
560				35×45 2.73				35×45 2.73				35×50 1.99				
680				35×50 3.13	← Case size φDxL(mm) ← Rated ripple current(A rms)(85°C,120Hz)											