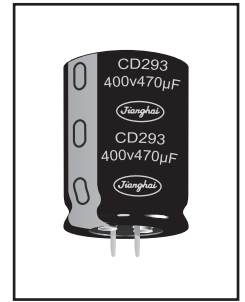
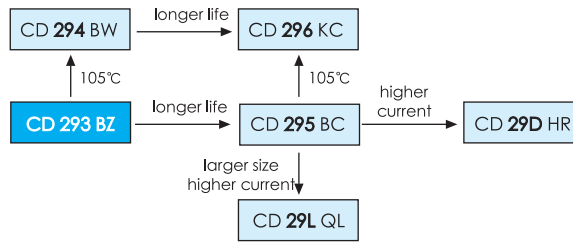


CD 293 BZ SERIES



2000h at 85°C

■ Standard 85°C



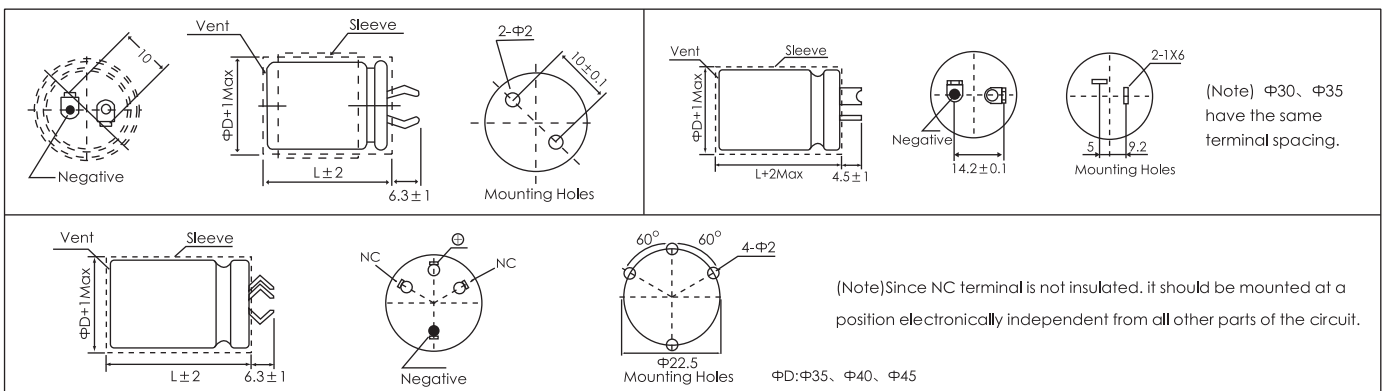
SNAP-IN/LUG

Items	Characteristics																																								
Operating Temperature Range (°C)	-40 ~ +85	-25 ~ +85																																							
Voltage Range (V)	10 ~ 400	420 ~ 500																																							
Capacitance Range (μF)	68 ~ 82000																																								
Capacitance Tolerance (20°C, 120Hz)	± 20%																																								
Leakage Current (μA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller. C: Nominal Capacitance (μF) V: Rated Voltage (V)																																								
Dissipation Factor (20°C, 120Hz)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>10~16</th> <th>25</th> <th>35~50</th> <th>63</th> <th>80~100</th> </tr> </thead> <tbody> <tr> <td>Cap (μF) ≤ 2700</td> <td>-</td> <td>-</td> <td>0.20</td> <td>0.15</td> <td>0.15</td> </tr> <tr> <td>3300 ~ 4700</td> <td>-</td> <td>0.35</td> <td>0.25</td> <td>0.20</td> <td>0.15</td> </tr> <tr> <td>5600 ~ 6800</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.20</td> <td>0.20</td> </tr> <tr> <td>≥ 8200</td> <td>0.40</td> <td>0.35</td> <td>0.35</td> <td>0.25</td> <td>0.25</td> </tr> </tbody> </table>	Rated Voltage (V)	10~16	25	35~50	63	80~100	Cap (μF) ≤ 2700	-	-	0.20	0.15	0.15	3300 ~ 4700	-	0.35	0.25	0.20	0.15	5600 ~ 6800	0.40	0.35	0.30	0.20	0.20	≥ 8200	0.40	0.35	0.35	0.25	0.25	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>160~200</th> <th>250~500</th> </tr> </thead> <tbody> <tr> <td>Φ (mm) 22 ~ 30</td> <td>0.10</td> <td>0.15</td> </tr> <tr> <td>35</td> <td>0.12</td> <td>0.15</td> </tr> </tbody> </table>	Rated Voltage (V)	160~200	250~500	Φ (mm) 22 ~ 30	0.10	0.15	35	0.12	0.15
	Rated Voltage (V)	10~16	25	35~50	63	80~100																																			
	Cap (μF) ≤ 2700	-	-	0.20	0.15	0.15																																			
	3300 ~ 4700	-	0.35	0.25	0.20	0.15																																			
5600 ~ 6800	0.40	0.35	0.30	0.20	0.20																																				
≥ 8200	0.40	0.35	0.35	0.25	0.25																																				
Rated Voltage (V)	160~200	250~500																																							
Φ (mm) 22 ~ 30	0.10	0.15																																							
35	0.12	0.15																																							
Stability at Low Temperature (Impedance Ratio at 120Hz)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>10</th> <th>10~35</th> <th>50~100</th> <th>160~200</th> <th>250~400</th> <th>420~500</th> </tr> </thead> <tbody> <tr> <td>Z_{-25°C} / Z_{+20°C}</td> <td>5</td> <td>4</td> <td>3</td> <td>4</td> <td></td> <td></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> </tbody> </table>	Rated Voltage (V)	10	10~35	50~100	160~200	250~400	420~500	Z _{-25°C} / Z _{+20°C}	5	4	3	4			Z _{-40°C} / Z _{+20°C}	18	15	10	6	8	-																			
	Rated Voltage (V)	10	10~35	50~100	160~200	250~400	420~500																																		
	Z _{-25°C} / Z _{+20°C}	5	4	3	4																																				
Z _{-40°C} / Z _{+20°C}	18	15	10	6	8	-																																			

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	4000h	> 65000h	2000h	3000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ± 30% of initial value		Within ± 15% of initial value	Within ± 20% of initial value	Within ± 15% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 150% of specified value	Not more than 200% of specified value	Not more than 150% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U _R I _R 85°C	U _R 1.2 x I _R 40°C	U _R I _R 85°C	U _R I _R = 0 85°C	U _R = 0 I _R = 0 85°C <div style="border: 1px solid black; padding: 2px;">After test: U_R to be applied for 30min >24h before measurement</div>

Dimensions

mm



Ratings for CD 293 BZ Series

U _r (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
10 (13) 1A	10000	54	43	2.5	22×25	ECS1ABZ103M□□220025
	12000	45	36	2.9	22×25	ECS1ABZ123M□□220025
		36	29	3.2	22×30	ECS1ABZ153M□□220030
	15000	36	29	3.1	25×25	ECS1ABZ153M□□250025
		30	24	3.6	22×35	ECS1ABZ183M□□220035
	18000	30	24	3.6	25×30	ECS1ABZ183M□□250030
		25	20	4	22×40	ECS1ABZ223M□□220040
		25	20	4.1	25×35	ECS1ABZ223M□□250035
	22000	25	20	4.1	30×25	ECS1ABZ223M□□300025
		17	13	4.6	25×40	ECS1ABZ333M□□250040
		17	13	4.8	30×30	ECS1ABZ333M□□300030
	33000	17	13	4.8	35×25	ECS1ABZ333M□□350025
		14	10.9	5.2	25×45	ECS1ABZ393M□□250045
		14	10.9	5.3	30×35	ECS1ABZ393M□□300035
	47000	12	9.1	5.8	25×50	ECS1ABZ473M□□250050
		12	9.1	6	30×40	ECS1ABZ473M□□300040
		12	9.1	6	35×30	ECS1ABZ473M□□350030
	56000	9.5	7.6	6.7	30×45	ECS1ABZ563M□□300045
		9.5	7.6	6.8	35×35	ECS1ABZ563M□□350035
		7.9	6.3	7.5	30×50	ECS1ABZ683M□□300050
	68000	7.9	6.3	7.7	35×40	ECS1ABZ683M□□350040
		6.5	5.2	8.7	35×45	ECS1ABZ823M□□350045
		6.5	5.2	2.2	22×25	ECS1CBZ103M□□220025
	8200	54	43	2.6	22×30	ECS1CBZ103M□□220030
		54	43	2.6	25×25	ECS1CBZ103M□□250025
		45	36	2.9	22×35	ECS1CBZ123M□□220035
	10000	36	29	3.3	22×40	ECS1CBZ153M□□220040
		36	29	3.3	25×30	ECS1CBZ153M□□250030
		36	29	3.4	30×25	ECS1CBZ153M□□300025
	18000	30	24	3.8	22×45	ECS1CBZ183M□□220045
		30	24	3.7	25×35	ECS1CBZ183M□□250035
25		20	4.2	22×50	ECS1CBZ223M□□220050	
22000	25	20	4.2	25×40	ECS1CBZ223M□□250040	
	25	20	4.2	30×30	ECS1CBZ223M□□300030	
	20	16	5	25×45	ECS1CBZ273M□□250045	
27000	20	16	5	30×35	ECS1CBZ273M□□300035	
	17	13	5.6	30×40	ECS1CBZ333M□□300040	
	17	13	5.6	35×30	ECS1CBZ333M□□350030	
39000	14	11	6.2	30×45	ECS1CBZ393M□□300045	
	14	11	6.3	35×35	ECS1CBZ393M□□350035	
	12	9.1	7	30×50	ECS1CBZ473M□□300050	
47000	12	9.1	7.2	35×40	ECS1CBZ473M□□350040	
	9.5	7.6	8	35×45	ECS1CBZ563M□□350045	
	8.3	6.7	2	22×25	ECS1EBZ562M□□220025	
6800	69	55	2.3	22×30	ECS1EBZ682M□□220030	
	69	55	2.3	25×25	ECS1EBZ682M□□250025	
	57	46	2.6	22×35	ECS1EBZ822M□□220035	
8200	47	38	2.9	22×40	ECS1EBZ103M□□220040	
	47	38	2.8	25×30	ECS1EBZ103M□□250030	
	47	38	3	30×25	ECS1EBZ103M□□300025	
10000	39	31	3.3	22×45	ECS1EBZ123M□□220045	
	39	31	3.2	25×35	ECS1EBZ123M□□250035	
	39	31	3.4	30×30	ECS1EBZ123M□□300030	
15000	31	25	3.7	25×40	ECS1EBZ153M□□250040	
	31	25	3.9	35×25	ECS1EBZ153M□□350025	
	26	21	4.3	25×50	ECS1EBZ183M□□250050	
18000	26	21	4.2	30×35	ECS1EBZ183M□□300035	
	26	21	4.4	35×30	ECS1EBZ183M□□350030	
	22	17	4.8	30×40	ECS1EBZ223M□□300040	
22000	22	17	5	35×35	ECS1EBZ223M□□350035	
	15	12	6.5	35×40	ECS1EBZ333M□□350040	
	12	10	7.5	35×45	ECS1EBZ393M□□350045	
47000	10	8	8.8	35×50	ECS1EBZ473M□□350050	
	100	81	1.8	22×25	ECS1VBZ332M□□220025	
	390	86	69	2.1	22×30	ECS1VBZ392M□□220030
4700	71	57	2.2	25×25	ECS1VBZ472M□□250025	
	72	57	2.3	22×35	ECS1VBZ562M□□220035	
	72	57	2.3	25×30	ECS1VBZ562M□□250030	
5600	59	47	2.9	22×40	ECS1VBZ682M□□220040	
	59	47	2.6	25×35	ECS1VBZ682M□□250035	
	59	47	2.7	30×25	ECS1VBZ682M□□300025	
6800	57	46	2.8	22×50	ECS1VBZ822M□□220050	
	57	46	2.8	25×40	ECS1VBZ822M□□250040	
	57	46	2.8	30×30	ECS1VBZ822M□□300030	
8200	47	38	3.1	25×45	ECS1VBZ103M□□250045	
	47	38	3.2	30×35	ECS1VBZ103M□□300035	
	39	31	3.5	25×50	ECS1VBZ123M□□250050	
12000	39	31	3.5	30×40	ECS1VBZ123M□□300040	
	39	31	3.6	35×30	ECS1VBZ123M□□350030	
	31	25	4.1	30×45	ECS1VBZ153M□□300045	
15000	31	25	4.1	35×35	ECS1VBZ153M□□350035	
	26	21	4.6	30×50	ECS1VBZ183M□□300050	
	26	21	4.7	35×40	ECS1VBZ183M□□350040	
22000	22	17	5.3	35×45	ECS1VBZ223M□□350045	
	27000	18	14	7	35×50	ECS1VBZ273M□□350050

U _r (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L	P/N	
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-	
50 (63) 1H	2200	120	97	1.7	22×25	ECS1HBZ222M□□220025	
	2700	100	79	1.9	22×30	ECS1HBZ272M□□220030	
		100	79	1.9	25×25	ECS1HBZ272M□□250025	
	3300	100	81	2	22×35	ECS1HBZ332M□□220035	
		86	69	2.1	22×35	ECS1HBZ392M□□220035	
	3900	86	69	2.1	25×30	ECS1HBZ392M□□250030	
		71	57	2.4	22×40	ECS1HBZ472M□□220040	
		71	57	2.4	25×35	ECS1HBZ472M□□250035	
	4700	72	57	2.5	22×50	ECS1HBZ562M□□220050	
		72	57	2.5	25×40	ECS1HBZ562M□□250040	
		72	57	2.5	30×30	ECS1HBZ562M□□300030	
	6800	59	47	2.8	25×45	ECS1HBZ682M□□250045	
		59	47	2.8	30×35	ECS1HBZ682M□□300035	
		57	46	3.2	25×50	ECS1HBZ822M□□250050	
	8200	57	46	3	30×40	ECS1HBZ822M□□300040	
		57	46	3	35×30	ECS1HBZ822M□□350030	
		47	38	3.4	30×45	ECS1HBZ103M□□300045	
	10000	47	38	3.4	35×35	ECS1HBZ103M□□350035	
		39	31	3.8	30×50	ECS1HBZ123M□□300050	
		39	31	3.8	35×40	ECS1HBZ123M□□350040	
	15000	31	25	4.5	35×50	ECS1HBZ153M□□350050	
		1500	135	107	1.6	22×25	ECS1JBZ152M□□220025
		1800	110	89	1.8	22×30	ECS1JBZ182M□□220030
	2200	91	73	2	22×30	ECS1JBZ222M□□220030	
		91	73	2	25×25	ECS1JBZ222M□□250025	
		74	59	2.2	22×35	ECS1JBZ272M□□220035	
	2700	74	59	2.3	25×30	ECS1JBZ272M□□250030	
		81	65	2.3	22×40	ECS1JBZ332M□□220040	
		81	65	2.3	25×35	ECS1JBZ332M□□250035	
3300	81	65	2.3	30×25	ECS1JBZ332M□□300025		
	69	55	2.6	25×40	ECS1JBZ392M□□250040		
	69	55	2.6	30×30	ECS1JBZ392M□□300030		
3900	69	55	2.7	35×25	ECS1JBZ392M□□350025		
	56	45	3.0	25×45	ECS1JBZ472M□□250045		
	56	45	3.0	30×30	ECS1JBZ472M□□300030		
4700	48	38	3.1	25×45	ECS1JBZ562M□□250045		
	48	38	3.2	30×35	ECS1JBZ562M□□300035		
	48	38	3.3	35×30	ECS1JBZ562M□□350030		
6800	40	32	3.6	30×40	ECS1JBZ682M□□300040		
	40	32	3.7	35×35	ECS1JBZ682M□□350035		
	41	33	3.7	30×50	ECS1JBZ822M□□300050		
8200	41	33	3.8	35×40	ECS1JBZ822M□□350040		
	34	27	4.3	35×45	ECS1JBZ103M□□350045		
	28	23	4.8	35×50	ECS1JBZ123M□□350050		
10000	200	160	1.3	22×25	ECS1KBZ102M□□220025		
1200	165	133	1.5	22×30	ECS1KBZ122M□□220030		
	133	107	1.7	25×25	ECS1KBZ152M□□250025		
	111	89	1.9	22×35	ECS1KBZ182M□□220035		
1800	111	89	1.9	25×30	ECS1KBZ182M□□250030		
	91	73	2.1	22×40	ECS1KBZ222M□□220040		
	91	73	2.2	25×35	ECS1KBZ222M□□250035		
2200	91	73	2.2	30×25	ECS1KBZ222M□□300025		
	74	59	2.5	22×50	ECS1KBZ272M□□220050		
	74	59	2.5	25×40	ECS1KBZ272M□□250040		
2700	74	59	2.5	30×30	ECS1KBZ272M□□300030		
	74	59	2.5	35×25	ECS1KBZ272M□□350025		
	61	49	2.8	25×45	ECS1KBZ332M□□250045		
3300	61	49	2.8	30×35	ECS1KBZ332M□□300035		
	52	41	3.1	25×50	ECS1KBZ392M□□250050		
	52	41	3.2	30×40	ECS1KBZ392M□□300040		
3900	52	41	3.2	35×30	ECS1KBZ392M□□350030		
	43	34	3.6	30×45	ECS1KBZ472M□□300045		
	43	34	3.6	35×35	ECS1KBZ472M□□350035		
5600	48	38	3.8	30×50	ECS1KBZ562M□□300050		
	48	38	3.8	35×40	ECS1KBZ562M□□350040		
	40	32	4.1	35×45	ECS1KBZ682M□□350045		
6800	41	33	4.7	35×50	ECS1KBZ822M□□350050		
	34	27	5.2	35×50	ECS1KBZ103M□□350050		
	28	23	5.8	35×55	ECS1KBZ123M□□350055		
8200	680	293	235	1.1	22×25	ECS2ABZ681M□□220025	
	820	243	195	1.2	22×30	ECS2ABZ821M□□220030	
	1000	200	160	1.4	25×25	ECS2ABZ102M□□250025	
1200	166	133	1.6	22×35	ECS2ABZ122M□□220035		
	166	133	1.6	25×30	ECS2ABZ122M□□250030		
	133	107	1.8	22×40	ECS2ABZ152M□□220040		
1500	133	107	1.7	25×35	ECS2ABZ152M□□250035		
	133	107	1.8	30×25	ECS2ABZ152M□□300025		
	111	89	2.1	22×50	ECS2ABZ182M□□220050		
1800	111	89	2	25×40	ECS2ABZ182M□□250040		
	111	89	2.1	30×30	ECS2ABZ182M□□300030		
	111	89	2.2	35×25	ECS2ABZ182M□□350025		

SNAP-IN/PLUG

CD 293 BZ SERIES



Ratings for CD 293 BZ Series

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L	P/N	
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-	
100 (125) 2A	2200	91	73	2.2	25×45	ECS2ABZ222M□□250045	
		91	73	2.3	30×35	ECS2ABZ222M□□300035	
		91	73	2.5	35×30	ECS2ABZ222M□□350030	
	2700	74	59	2.6	25×50	ECS2ABZ272M□□250050	
		74	59	2.7	30×40	ECS2ABZ272M□□300040	
		61	49	3	30×45	ECS2ABZ332M□□300045	
	3300	61	49	3.1	35×35	ECS2ABZ332M□□350035	
		52	41	3.4	30×50	ECS2ABZ392M□□300050	
		52	41	3.4	35×40	ECS2ABZ392M□□350040	
	4700	43	34	4	35×50	ECS2ABZ472M□□350050	
		220	600	483	1.1	22×25	ECS2CBZ221M□□220025
			270	490	393	1.2	22×25
	330		400	322	1.2	22×25	ECS2CBZ331M□□220025
	160 (200) 2C	390	341	273	1.5	22×30	ECS2CBZ391M□□220030
281			273	1.5	25×25	ECS2CBZ391M□□250025	
243			226	1.6	25×30	ECS2CBZ471M□□250030	
560		237	190	1.9	22×35	ECS2CBZ561M□□220035	
		237	190	1.9	25×30	ECS2CBZ561M□□250030	
		237	190	2	30×25	ECS2CBZ561M□□300025	
680		196	157	2.1	22×40	ECS2CBZ681M□□220040	
		196	157	2.2	25×35	ECS2CBZ681M□□250035	
		162	130	2.5	22×50	ECS2CBZ821M□□220050	
820		162	130	2.4	25×40	ECS2CBZ821M□□250040	
		162	130	2.5	30×30	ECS2CBZ821M□□300030	
		195	156	2.4	35×25	ECS2CBZ821M□□350025	
1000		133	107	2.7	25×45	ECS2CBZ102M□□250045	
		133	107	2.8	30×35	ECS2CBZ102M□□300035	
	160	128	2.7	35×30	ECS2CBZ102M□□350030		
1200	111	89	3.1	25×50	ECS2CBZ122M□□250050		
	111	89	3.2	30×40	ECS2CBZ122M□□300040		
	133	107	3.0	35×35	ECS2CBZ122M□□350035		
1500	89	71	3.7	30×45	ECS2CBZ152M□□300045		
	107	85	3.5	35×40	ECS2CBZ152M□□350040		
	180	89	71	3.9	35×45	ECS2CBZ182M□□350045	
180 (225) 2K	2200	73	58	4.5	35×50	ECS2CBZ222M□□350050	
	270	495	393	1.2	22×25	ECS2KBZ271M□□220025	
	330	400	322	1.4	22×30	ECS2KBZ331M□□220030	
	390	340	273	1.5	25×25	ECS2KBZ391M□□250025	
		283	226	1.7	22×35	ECS2KBZ471M□□220035	
		283	226	1.7	25×30	ECS2KBZ471M□□250030	
	470	283	226	1.8	30×25	ECS2KBZ471M□□300025	
		237	190	1.9	22×40	ECS2KBZ561M□□220040	
		237	190	2.0	25×35	ECS2KBZ561M□□250035	
	560	196	157	2.3	22×50	ECS2KBZ681M□□220050	
		196	157	2.2	25×40	ECS2KBZ681M□□250040	
		196	157	2.3	30×30	ECS2KBZ681M□□300030	
	680	235	188	2.2	35×25	ECS2KBZ681M□□350025	
		162	130	2.5	25×45	ECS2KBZ821M□□250045	
162		130	2.6	30×35	ECS2KBZ821M□□300035		
820	195	156	2.5	35×30	ECS2KBZ821M□□350030		
	133	107	2.9	25×50	ECS2KBZ102M□□250050		
	133	107	2.9	30×40	ECS2KBZ102M□□300040		
1000	111	89	3.3	30×45	ECS2KBZ122M□□300045		
	133	107	3.1	35×35	ECS2KBZ122M□□350035		
	1500	107	85	3.6	35×45	ECS2KBZ152M□□350045	
1800	89	71	4.1	35×50	ECS2KBZ182M□□350050		
	220	600	483	1.1	22×25	ECS2DBZ221M□□220025	
		270	492	393	1.2	22×30	ECS2DBZ271M□□220030
330		402	322	1.4	22×30	ECS2DBZ331M□□220030	
	402	322	1.4	25×25	ECS2DBZ331M□□250025		
	341	273	1.6	22×35	ECS2DBZ391M□□220035		
390	341	273	1.6	25×30	ECS2DBZ391M□□250030		
	283	226	1.8	22×40	ECS2DBZ471M□□220040		
	283	226	1.9	30×25	ECS2DBZ471M□□300025		
470	237	190	2.0	22×45	ECS2DBZ561M□□220045		
	237	190	2.0	25×35	ECS2DBZ561M□□250035		
	237	190	2.1	30×30	ECS2DBZ561M□□300030		
560	285	228	2.0	35×25	ECS2DBZ561M□□350025		
	196	157	2.3	25×40	ECS2DBZ681M□□250040		
	196	157	2.4	30×35	ECS2DBZ681M□□300035		
680	162	130	2.6	25×50	ECS2DBZ821M□□250050		
	162	130	2.7	30×40	ECS2DBZ821M□□300040		
	195	156	2.5	35×30	ECS2DBZ821M□□350030		
820	133	107	3.1	30×45	ECS2DBZ102M□□300045		
	160	128	2.8	35×35	ECS2DBZ102M□□350035		
	111	89	3.4	30×50	ECS2DBZ122M□□300050		
1000	133	107	3.2	35×40	ECS2DBZ122M□□350040		
	1500	107	85	3.8	35×50	ECS2DBZ152M□□350050	

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L	P/N	
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-	
250 (300) 2E	100	1990	1592	0.68	22×25	ECS2EBZ101M□□220025	
		180	1106	885	0.94	22×25	ECS2EBZ181M□□220025
		905	724	1.1	22×30	ECS2EBZ221M□□220030	
	220	905	724	1.1	25×25	ECS2EBZ221M□□250025	
		270	737	590	1.2	22×35	ECS2EBZ271M□□220035
		603	483	1.4	22×40	ECS2EBZ331M□□220040	
	330	603	483	1.4	25×30	ECS2EBZ331M□□250030	
		603	483	1.5	30×25	ECS2EBZ331M□□300025	
		390	511	409	1.6	22×45	ECS2EBZ391M□□220045
	470	511	409	1.6	25×35	ECS2EBZ391M□□250035	
		424	339	1.8	22×50	ECS2EBZ471M□□220050	
		424	339	1.8	25×40	ECS2EBZ471M□□250040	
	560	424	339	1.8	30×30	ECS2EBZ471M□□300030	
		424	339	2.4	35×25	ECS2EBZ471M□□350025	
356		285	2.0	25×45	ECS2EBZ561M□□250045		
680	293	235	2.3	30×40	ECS2EBZ681M□□300040		
	293	235	2.6	35×30	ECS2EBZ681M□□350030		
	243	195	2.6	30×45	ECS2EBZ821M□□300045		
820	243	195	2.6	35×35	ECS2EBZ821M□□350035		
	1000	199	160	3.0	35×40	ECS2EBZ102M□□350040	
	1200	166	133	3.4	35×45	ECS2EBZ122M□□350045	
315 (365) 2F	100	1990	1592	0.67	22×25	ECS2FBZ101M□□220025	
	150	1327	1062	0.85	22×30	ECS2FBZ151M□□220030	
		1327	1062	0.85	25×25	ECS2FBZ151M□□250025	
		1106	885	0.96	22×35	ECS2FBZ181M□□220035	
	180	1106	885	0.96	25×30	ECS2FBZ181M□□250030	
		905	724	1.1	22×40	ECS2FBZ221M□□220040	
		905	724	1.1	25×35	ECS2FBZ221M□□250035	
	220	905	724	1.1	30×25	ECS2FBZ221M□□300025	
		737	590	1.2	22×45	ECS2FBZ271M□□220045	
		737	590	1.3	25×40	ECS2FBZ271M□□250040	
	270	737	590	1.3	30×30	ECS2FBZ271M□□300030	
		737	590	1.3	35×25	ECS2FBZ271M□□350025	
		330	603	483	1.4	25×45	ECS2FBZ331M□□250045
	390	603	483	1.4	30×35	ECS2FBZ331M□□300035	
511		409	1.6	25×50	ECS2FBZ391M□□250050		
511		409	1.6	30×40	ECS2FBZ391M□□300040		
470	511	409	1.6	35×30	ECS2FBZ391M□□350030		
	424	339	1.8	30×45	ECS2FBZ471M□□300045		
	424	339	1.8	35×35	ECS2FBZ471M□□330035		
560	356	285	2.0	30×50	ECS2FBZ561M□□300050		
	356	285	2.0	35×40	ECS2FBZ561M□□350040		
	680	293	235	2.3	35×45	ECS2FBZ681M□□350045	
350 (400) 2V	82	2427	1941	0.64	22×25	ECS2VBZ820M□□220025	
	100	1990	1592	0.80	22×25	ECS2VBZ101M□□220025	
	120	1658	1327	0.82	22×30	ECS2VBZ121M□□220030	
		1658	1327	0.81	25×25	ECS2VBZ121M□□250025	
		1327	1062	0.94	22×35	ECS2VBZ151M□□220035	
	150	1327	1062	0.94	25×30	ECS2VBZ151M□□250030	
		1106	885	1.1	22×40	ECS2VBZ181M□□220040	
		1106	885	1.1	30×25	ECS2VBZ181M□□300025	
	220	905	724	1.2	22×45	ECS2VBZ221M□□220045	
		905	724	1.2	25×35	ECS2VBZ221M□□250035	
		905	724	1.2	30×30	ECS2VBZ221M□□300030	
	270	905	724	1.3	35×25	ECS2VBZ221M□□350025	
		737	590	1.4	25×45	ECS2VBZ271M□□250045	
		737	590	1.4	30×35	ECS2VBZ271M□□300035	
330	603	483	1.6	25×50	ECS2VBZ331M□□250050		
	603	483	1.6	35×30	ECS2VBZ331M□□350030		
	511	409	1.7	30×40	ECS2VBZ391M□□300040		
390	511	409	1.8	35×35	ECS2VBZ391M□□350035		
	424	339	2.0	30×45	ECS2VBZ471M□□300045		
	424	339	2.0	35×40	ECS2VBZ471M□□350040		
560	356	285	2.3	35×45	ECS2VBZ561M□□350045		
	680	293	535	2.6	35×50	ECS2VBZ681M□□350050	
	820	243	195	2.8	35×60	ECS2VBZ821M□□350060	
400 (450) 2G	68	2926	2341	0.55	22×25	ECS2GBZ680M□□220025	
	82	2427	1941	0.65	22×25	ECS2GBZ820M□□220025	
	100	1990	1592	0.70	22×30	ECS2GBZ101M□□220030	
		1990	1592	0.70	25×25	ECS2GBZ101M□□250025	
		1658	1327	0.79	22×30	ECS2GBZ121M□□220030	
	120	1658	1327	0.79	25×30	ECS2GBZ121M□□250030	
		1327	1062	0.90	22×35	ECS2GBZ151M□□220035	
		1327	1062	0.89	25×30	ECS2GBZ151M□□250030	
	150	1106	885	1.0	22×40	ECS2GBZ181M□□220040	
		1106	885	1.0	25×30	ECS2GBZ181M□□250030	
		905	724	1.1	22×50	ECS2GBZ221M□□220050	
	220	905	724	1.2	25×40	ECS2GBZ221M□□250040	
		737	590	1.3	25×45	ECS2GBZ271M□□250045	
		737	590	1.5	30×30	ECS2GBZ271M□□300030	

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Ratings for CD 293 BZ Series

U _r (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
400 (450) 2G	330	603	483	1.6	25 x 45	ECS2GBZ331M□□250045
		603	483	1.7	30 x 35	ECS2GBZ331M□□300035
	390	511	409	1.8	35 x 30	ECS2GBZ391M□□350030
		511	409	1.9	30 x 40	ECS2GBZ391M□□300040
	470	424	339	2.1	35 x 35	ECS2GBZ471M□□350035
	560	356	285	2.3	35 x 40	ECS2GBZ561M□□350040
	680	293	235	2.7	35 x 45	ECS2GBZ681M□□350045
	820	242	194	3.1	35 x 50	ECS2GBZ821M□□350050
	1000	133	107	3.7	35 x 60	ECS2GBZ102M□□350060
	420 (470) 2X	100	1990	1592	0.71	22 x 30
1990			1592	0.72	25 x 25	ECS2XBZ102M□□250025
120		1658	1327	0.81	22 x 35	ECS2XBZ121M□□220035
		1658	1327	0.82	25 x 30	ECS2XBZ121M□□250030
150		1327	1062	0.96	25 x 30	ECS2XBZ151M□□250030
		1106	885	1.1	25 x 35	ECS2XBZ181M□□250035
180		1106	885	1.2	30 x 30	ECS2XBZ181M□□300030
		905	724	1.2	25 x 40	ECS2XBZ221M□□250040
220		905	724	1.3	30 x 30	ECS2XBZ221M□□300030
		737	590	1.3	25 x 45	ECS2XBZ271M□□250045
270		737	590	1.4	30 x 35	ECS2XBZ271M□□300035
		603	483	1.7	30 x 40	ECS2XBZ331M□□300040
330		511	409	1.8	30 x 45	ECS2XBZ391M□□300045
		511	409	1.9	35 x 35	ECS2XBZ391M□□350035
390		424	339	2.1	30 x 50	ECS2XBZ471M□□300050
		424	339	2.2	35 x 40	ECS2XBZ471M□□350040
560		356	285	2.4	35 x 45	ECS2XBZ561M□□350045
680		293	235	2.8	35 x 50	ECS2XBZ681M□□350050
820		242	194	3.2	35 x 60	ECS2XBZ821M□□350060
1000		133	107	4.0	40 x 60	ECS2XBZ102M□□400060

U _r (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
450 (500) 2W	68	2926	2341	0.57	22 x 25	ECS2WBZ680M□□220025
		82	2427	1941	0.68	22 x 30
	100	1990	1592	0.73	25 x 25	ECS2WBZ101M□□250025
		1658	1327	0.80	22 x 35	ECS2WBZ121M□□220035
	120	1658	1327	0.83	25 x 30	ECS2WBZ121M□□250030
		1327	1062	0.95	22 x 45	ECS2WBZ151M□□220045
	150	1327	1062	0.95	25 x 35	ECS2WBZ151M□□250035
		1106	885	1.1	25 x 40	ECS2WBZ181M□□250040
	180	1106	885	1.1	30 x 30	ECS2WBZ181M□□300030
		905	724	1.2	25 x 45	ECS2WBZ221M□□250045
	220	905	724	1.3	30 x 35	ECS2WBZ221M□□300035
		737	590	1.5	30 x 40	ECS2WBZ271M□□300040
	330	603	480	1.7	30 x 45	ECS2WBZ331M□□300045
	390	511	409	1.9	35 x 40	ECS2WBZ391M□□350040
	470	424	339	2.2	30 x 50	ECS2WBZ471M□□300050
	560	356	285	2.4	35 x 50	ECS2WBZ561M□□350050
	680	293	235	2.8	35 x 55	ECS2WBZ681M□□350055
	820	242	194	3.2	35 x 60	ECS2WBZ821M□□350060
	1000	133	107	4.2	35 x 70	ECS2WBZ102M□□350070
	500 (550) 2H	100	1990	1592	0.9	25 x 30
120		1658	1327	1.0	25 x 35	ECS2HBZ121M□□250035
150		1327	1062	1.2	30 x 30	ECS2HBZ151M□□300030
180		1106	885	1.4	25 x 45	ECS2HBZ181M□□250045
		1106	885	1.3	30 x 35	ECS2HBZ181M□□300035
220		905	724	1.6	25 x 50	ECS2HBZ221M□□250050
		905	724	1.5	30 x 40	ECS2HBZ221M□□300040
270		737	590	1.8	30 x 45	ECS2HBZ271M□□300045
330		603	483	2.0	35 x 35	ECS2HBZ331M□□350035
390		511	409	2.3	35 x 40	ECS2HBZ391M□□350040
470	424	339	2.6	35 x 50	ECS2HBZ471M□□350050	
560	356	285	2.9	35 x 55	ECS2HBZ561M□□350055	
680	293	235	3.2	35 x 65	ECS2HBZ681M□□350065	

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Customer products are available on request.

Frequency Coefficient

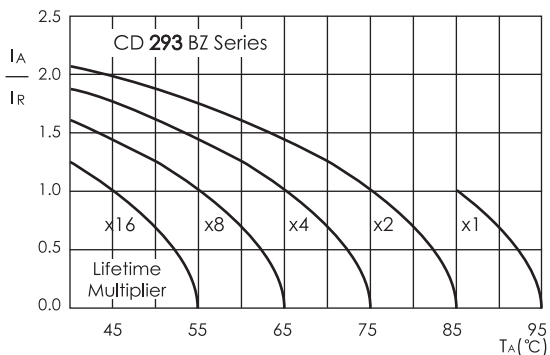
Voltage (V)	Frequency					
	50/60Hz	120Hz	300Hz	1kHz	10kHz	≥50kHz
≤ 50	0.88	1.00	1.07	1.15	1.15	1.15
63 ~ 100	0.80	1.00	1.17	1.32	1.45	1.50
≥ 160	0.80	1.00	1.16	1.30	1.41	1.43

Temperature Coefficient

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

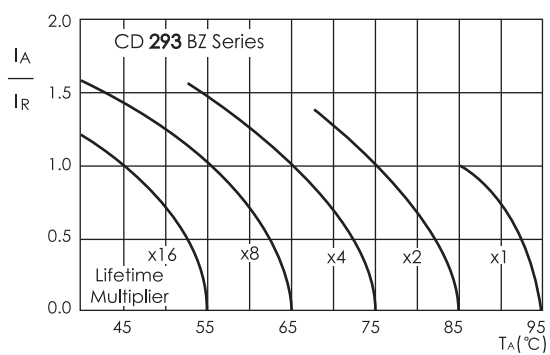
Lifetime Diagram

Lifetime Diagram U_r < 160V



I_A = actual ripple current at 120Hz, I_R = rated ripple current at 120Hz, 85°C
Multiplier of Useful Life as a function of ambient temperature and ripple current load

Lifetime Diagram U_r ≥ 160V



I_A = actual ripple current at 120Hz, I_R = rated ripple current at 120Hz, 85°C
Multiplier of Useful Life as a function of ambient temperature and ripple current load