

CD294 Series

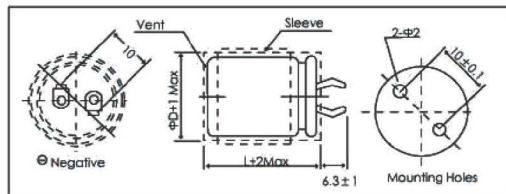
- High Temperature snap-in series
- Endurance: 2000 hours at 105°C
- Sleeve color: Silver Print in Black Sleeve



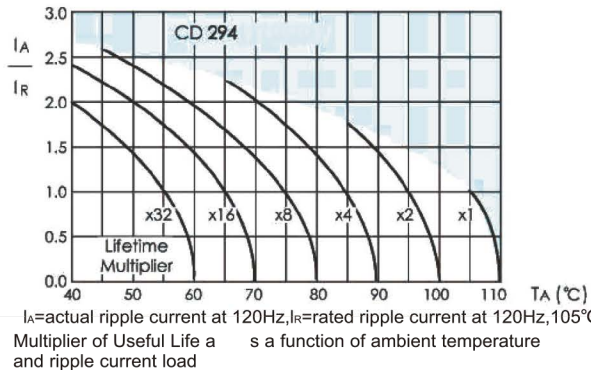
Item	Characteristics							
Operating Temperature Range(°C)	-40~+105					-25~+105		
Voltage Range(V)	16~100					160~500		
Capacitance Range (μF)	39~47000							
Capacitance Tolerance (20°C,120Hz)	±20%							
Leakage Current (μA)	After 5 minutes at 20°C application of rated voltage,leakage current is not more than 0.01 CV or 1.5mA,whichever is smaller. C:Nominal Capacitance (μF) V:Rated Voltage (V)							
Dissipation Factor (20°C,120Hz)	Rated Voltage (V)	16	25	35	50	63~100	160~400	450~500
	Tanδ(max)	0.50	0.40	0.35	0.30	0.20	0.15	0.20
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	16~100			160~200		250~500	
	Z -25°C/Z +20°C	4						
	Z -40°C/Z +20°C	15			-			

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	4000h	>180000h	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 ±20% of initial value	Within ±20% of initial value	Within ±20% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 200% of specified value	Not more than 200% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature Failure Rate Level	U _R I _R 105°C ≤1% Failure Rate	U _R 1.4×I _R 40°C ≤1% Failure Rate	U _R I _R 105°C guaranteed	U _R I _R =0 105°C	U _R =0 I _R =0 105°C After test: U _R to be applied for 30min >24h before measurement

Dimensions(mm)



Lifetime Diagram



Frequency Coefficient

Freq.(HZ)	50Hz	120Hz	1kHz	10kHz	≥20kHz
Voltage(V)					
≤100	0.95	1.00	1.10	1.15	1.15
160~250	0.87	1.00	1.11	1.18	1.20
≥350	0.80	1.00	1.14	1.14	1.20

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Ratings					
V _{DC} (Surge Voltage)	Rated Capacitance	Max. ESR 20°C, 120Hz	Typ. ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size φ DxL
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)
16 (20)	6800	98	68	1.6	22×25
	10000	66	46	1.99	22×30
		66	46	1.99	25×25
		55	39	2.28	22×35
	12000	55	39	2.3	25×30
		55	39	2.38	30×25
	15000	44	31	2.64	22×40
		44	31	2.68	25×35
		37	26	2.98	22×45
	18000	37	26	3.04	25×40
		37	26	3	30×30
		37	26	3.1	35×25
	22000	30	21	3.4	25×45
		30	21	3.39	30×35
		25	17	3.81	25×50
	27000	25	17	3.83	30×40
		25	17	3.74	35×30
	33000	20	14	4.3	30×45
		20	14	4.24	35×35
	39000	17	12	4.74	30×50
		17	12	4.72	35×40
	47000	14	10	5.27	35×45
25 (32)	4700	113	79	1.55	22×25
	6800	78	55	1.91	22×30
		78	55	1.91	25×25
		65	45	2.14	22×35
	8200	65	45	2.16	25×30
		65	45	2.25	30×25
	10000	53	37	2.4	22×40
		53	37	2.44	25×35
		44	31	2.69	22×45
	12000	44	31	2.74	25×40
		44	31	2.7	30×30
		44	31	2.8	35×25
	15000	35	25	3.15	25×45
		35	25	3.13	30×35
		35	25	3.22	35×30
	18000	30	21	3.54	25×50
		30	21	3.54	30×40
	22000	24	17	4.24	30×45
		24	17	3.96	35×35
	27000	20	14	4.75	35×45
35 (44)	33000	16	11	5.39	35×50
	3300	141	99	1.43	22×25
	3900	119	83	1.65	22×30
	4700	99	69	1.78	25×25
		83	58	2.02	22×35
	5600	83	58	2.04	25×30
		83	58	2.12	30×25
	6800	68	48	2.28	22×40
		68	48	2.31	25×35
		57	40	2.67	22×50
	8200	57	40	2.6	25×40
		57	40	2.56	30×30
		57	40	2.78	35×25
	10000	46	33	2.92	25×45
		46	33	2.92	30×35
	12000	39	27	3.26	25×50
		39	27	3.28	30×40
		39	27	3.2	35×30
	15000	31	22	3.74	30×45
		31	22	3.69	35×35
50 (63)	18000	26	18	4.16	35×40
	22000	21	15	4.92	35×50
	1800	221	155	1.31	22×25
	2200	181	127	1.45	22×30
	2700	147	103	1.7	22×30
		147	103	1.7	25×25
	3300	121	84	1.98	22×35
		121	84	2	25×30
		102	72	2.25	22×40
	3900	102	72	2.28	25×35
		102	72	2.22	30×25
		85	59	2.56	22×45
	4700	85	59	2.58	30×30
		85	59	2.67	35×25

Ratings						
V _{DC} (Surge Voltage)	Rated Capacitance	Max. ESR 20°C, 120Hz	Typ. ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ϕ DxL	
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	
50 (63)	5600	71	50	2.89	22×50	
		71	50	2.81	25×40	
		71	50	2.95	30×35	
	6800	59	41	3.37	25×50	
		59	41	3.39	30×40	
		59	41	3.31	35×30	
	8200	49	34	3.71	30×45	
		49	34	3.66	35×35	
	10000	40	28	4.09	30×50	
		40	28	4.07	35×40	
		12000	33	23	45	35×45
	63 (79)	1200	221	155	125	22×25
		1800	147	103	152	22×30
147			103	15.2	25×25	
2200		121	84	173	22×35	
		121	84	175	25×30	
2700		98	69	1.97	22×40	
		98	69	1.99	25×35	
		98	69	1.93	30×25	
3300		80	56	2.32	22×50	
		80	56	2.27	25×40	
		80	56	2.24	30×30	
		80	56	2.41	35×25	
3900		68	48	2.54	25×45	
		68	48	2.55	30×35	
4700		57	40	2.88	25×50	
		57	40	2.9	30×40	
5600		47	33	3.28	30×45	
		47	33	3.24	35×35	
6800		39	27	3.73	30×50	
		39	27	3.71	35×40	
80 (100)		8200	32	23	4.16	35×45
	10000	27	19	4.69	35×50	
	820	324	227	1.11	22×25	
	1000	266	186	1.25	22×25	
	1200	221	155	1.39	22×30	
	1500	221	155	1.39	25×25	
		177	124	1.61	22×35	
	177	124	1.62	25×30		
		147	103	1.83	22×40	
	147	103	1.81	30×25		
		2200	121	84	2.09	22×45
	121		84	2.01	25×35	
	121		84	2.1	30×30	
121	84		2.17	35×25		
2700	98	69	2.43	25×45		
	98	69	2.43	30×35		
3300	80	56	2.76	25×50		
	80	56	2.78	30×40		
	80	56	2.71	35×30		
3900	68	48	3.12	30×45		
	68	48	3.07	35×35		
4700	57	40	3.56	30×50		
	57	40	3.5	35×40		
5600	47	33	3.87	35×45		
6800	39	27	4.19	35×50		
100 (125)	560	474	332	1.07	22×25	
	820	324	227	1.35	22×30	
		324	227	1.35	25×25	
	1000	265	186	1.54	22×35	
		265	186	1.56	25×30	
	1200	221	155	1.74	22×40	
		221	155	1.76	25×35	
		221	155	1.71	30×25	
	1500	177	124	1.99	22×45	
		177	124	2.03	25×40	
		177	124	2	30×30	
		177	124	2.07	35×25	
	1800	147	103	2.28	25×45	
		147	103	2.27	30×35	
	2200	121	84	2.57	25×50	
		121	84	2.59	30×40	
	121	84	2.52	35×30		
		2700	98	69	2.94	30×45
	98		69	2.9	35×35	

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Ratings					
V _{DC} (Surge Voltage)	Rated Capacitance	Max. ESR 20°C, 120Hz	Typ. ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size φDxL
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)
100 (125)	3300	80	56	3.32	30×50
		80	56	3.31	35×40
	3900	68	48	3.69	35×45
	4700	57	40	4.14	35×50
160 (200)	330	603	422	1.16	22×25
	390	510	357	1.43	22×30
	470	424	296	1.52	22×35
		424	296	1.55	25×25
	560	355	249	1.62	22×40
		355	249	1.73	25×30
	680	293	205	1.7	22×45
		293	205	1.81	25×35
		293	205	1.82	30×25
		243	170	1.81	22×50
	820	243	170	1.98	25×40
		243	170	1.98	30×30
		243	170	1.93	35×25
	1000	199	139	2.04	25×45
		199	139	2.14	30×35
	1200	166	116	2.12	25×50
		166	116	2.22	30×40
	1500	166	116	2.4	35×30
		133	93	2.46	30×45
		133	93	2.53	35×35
	1800	111	77	2.98	35×45
	2200	91	63	3.1	35×50
180 (225)	270	737	516	1.08	22×25
	330	603	422	1.3	22×30
	390	510	357	1.35	25×25
	470	424	296	1.5	22×35
		424	296	1.62	25×30
	560	355	249	1.62	22×40
		355	249	1.69	25×35
		355	249	1.67	30×25
		293	205	1.76	22×50
	680	293	205	1.72	25×40
		293	205	1.74	30×30
		293	205	1.92	35×25
		243	170	1.78	25×45
	820	243	170	1.85	30×35
		199	139	1.91	25×50
		199	139	2.01	30×40
	1000	199	139	2.16	35×30
		166	116	2.19	30×45
	1200	166	116	2.34	35×35
		133	93	2.36	30×50
	1500	133	93	2.56	35×40
		111	77	2.67	35×45
	1800	111	77	2.67	35×45
	220	905	633	1.08	22×25
	270	737	516	1.20	22×30
	330	603	422	1.3	22×30
		603	422	1.35	25×25
	390	510	357	1.41	22×35
200 (250)	470	424	296	1.5	22×40
		424	296	1.47	25×30
		424	296	1.56	30×25
	560	355	249	1.58	22×45
		355	249	1.65	25×35
		293	205	1.68	22×50
	680	293	205	1.8	25×40
		293	205	1.82	30×30
		293	205	1.96	35×25
		243	170	1.87	25×50
	820	243	170	1.99	30×35
		243	170	2.07	35×30

Ratings					
V _{DC} (Surge Voltage)	Rated Capacitance	Max. ESR 20°C, 120Hz	Typ. ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size φDxL
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)
200 (250)	1000	199	139	2.17	30×45
		199	139	2.22	35×35
		166	116	2.22	30×50
	1200	166	116	2.42	35×40
		133	93	2.59	35×45
	1800	111	77	2.7	35×50
250 (300)	180	1106	774	0.94	22×25
	220	905	633	1.1	22×30
		905	633	1.15	25×25
	270	737	516	1.13	22×35
	330	603	422	1.2	22×40
		603	422	1.3	25×30
		603	422	1.3	30×25
		510	357	1.26	22×45
	390	510	357	1.41	25×35
		424	296	1.37	22×50
		424	296	1.52	25×40
		424	296	1.36	30×30
	470	424	296	1.4	35×25
		355	249	1.59	25×45
		355	249	1.57	30×35
		355	249	1.56	35×30
	560	293	205	1.66	25×50
		293	205	1.76	30×40
	680	243	170	1.83	30×45
		243	170	1.82	35×35
	820	199	139	1.87	30×50
		199	139	1.99	35×40
	1200	166	116	2.1	35×45
	68	2927	1610	0.56	22×25
	100	1990	1095	0.7	22×30
		1990	1095	0.7	25×25
		1659	912	0.73	22×35
	120	1327	730	0.79	22×40
		1327	730	0.82	25×30
		1327	730	0.82	30×25
		1106	608	0.81	22×45
	150	1106	608	0.89	25×35
		1106	608	0.9	30×30
		905	498	0.93	22×50
	180	905	498	0.97	25×40
		905	498	0.98	35×25
		737	406	1.01	25×50
	220	737	406	1.05	30×35
		737	406	1.01	35×30
		603	332	1.16	30×45
	270	603	332	1.16	35×35
		510	281	1.26	30×50
	330	510	281	1.26	35×40
		424	233	1.35	35×45
	390	424	233	1.51	35×50
	470	355	196	1.51	35×50

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Ratings					
V _{DC} (Surge Voltage)	Rated Capacitance	Max. ESR 20°C, 120Hz	Typ. ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size Ø D x L
(V)	(µF)	(mΩ)	(mΩ)	(Arms)	(mm)
400 (450)	68	2927	1522	0.47	22×25
	82	2427	1262	0.56	22×30
	100	2427	1262	0.65	25×25
	100	1990	1035	0.60	22×30
	120	1659	863	0.64	22×35
	120	1659	863	0.7	25×30
	120	659	863	0.78	30×25
	150	1327	690	0.7	22×40
	150	1327	690	0.73	25×35
	150	1106	575	0.78	22×50
	180	1106	575	0.82	25×40
	180	1106	575	0.83	30×30
	180	1106	575	0.86	35×25
	220	905	471	0.87	25×45
	220	905	471	0.96	30×35
	270	737	383	0.94	25×50
	270	737	383	0.95	30×40
	270	737	383	0.91	35×30
	330	603	314	1.11	30×45
	330	603	314	1.13	35×35
	390	510	265	1.15	30×50
	390	510	265	1.26	35×40
	470	424	220	1.31	35×45
	560	355	185	1.5	35×50
450 (500)	56	4739	2370	0.47	22×25
	68	3903	1951	0.56	22×30
	82	3903	1951	0.65	25×25
	100	3237	1618	0.64	22×35
	100	2654	1327	0.7	22×40
	100	2654	1327	0.7	25×30
	120	2654	1327	0.78	30×25
	120	2212	1106	0.73	22×45
	120	2212	1106	0.73	25×35
	150	1769	885	0.78	22×50
	150	1769	885	0.82	25×40
	150	1769	885	0.83	30×30
	150	1769	885	0.86	35×25
	180	1474	737	0.87	25×45
	180	1474	737	0.86	30×35
	220	1206	603	0.94	25×50
	220	1206	603	0.95	30×40
	220	1206	603	0.91	35×30
	270	983	492	1.11	30×45
	270	983	492	1.13	35×35
	330	804	402	1.15	30×50
	330	804	402	1.26	35×40
	390	681	340	1.31	35×45
	470	565	282	1.5	35×50
500 (550)	39	6805	3403	0.35	22×30
	47	5647	2823	0.41	22×35
	56	4739	2370	0.47	22×40
	68	3903	1951	0.54	22×45
	82	3237	1618	0.62	25×40
	100	2654	1327	0.67	25×45
	120	2212	1106	0.77	25×50
	120	2212	1106	0.72	35×30
	150	1769	885	0.85	30×40
	180	1474	737	1.01	30×50
	220	1206	603	1.12	35×45
	270	983	492	1.29	35×50

Customer products are available on request.