CD294 Wide Temperature Range, Long Life Series

- Wide temperature range
- Load life of 2000 hours at 105℃

■ Specifications

Item	Characteristics	
Operating Temperature Range	10V ~ 250V : -40℃ ~ +105℃	315V ~ 450V: -25℃ ~ +105℃
Rated Voltage Range	10V ~ 450V	
Nominal Capacitance Range	39 £ gF ~ 22000 £ gF	
Capacitance Tolerance	M (± 20%) (20℃, 120Hz)	
Leakage Current	$I \leqslant 0.02 C_R U_R$ (£ gA) C_R: Nominal capacitance(£ gF) U_R: Rated voltage(V) (20℃, after 5 minutes)	

Dissipation Factor (Max)

U_R(V)	10	16	25	35	50	63 ~ 100	160 ~ 200	250 ~ 400	450
tan δ	0.45	0.35	0.30	0.20	0.20	0.15	0.12	0.15	0.25

(20℃, 120Hz)

Low Temperature Stability (Impedance Ratio)

U_R(V)	10 ~	25	35	50 ~	80 ~ 100	160 ~ 200	250 ~ 400	450
Z(-25℃)/Z(+20℃)	4	3	3	2	2	3	4	8
Z(-40℃)/Z(+20℃)	15	10	8	6	5	6	—	—

Load Life

After 2000 hours' application of rated voltage with rated ripple current at 105℃,the capacitor shall meet the following requirement:

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.

Shelf Life: After storage for 1000 hours at +105℃, the capacitors shall meet the requirement of load life above.

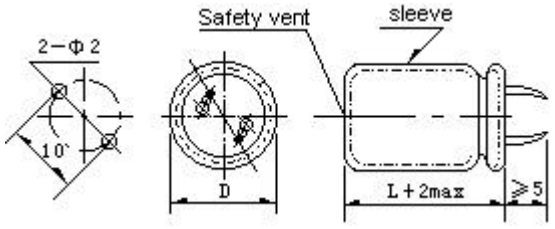
Rated Ripple Current & Frequency Multipliers

U_R \ Freq.	50Hz	120Hz	1kHz	10kHz	20kHz
≤50V	0.95	1.00	1.10	1.15	1.15
63 V～100 V	0.95	1.00	1.16	1.30	1.33
≥160 V	0.90	1.00	1.20	1.50	1.55

Rated Ripple Current & Temperature Multipliers

Temperature	+40℃	+55℃	+70℃	+85℃	+105℃
Multiplier	2.7	2.5	2.1	1.7	1.0

■ Dimensions



(mm)

D±1.5	22						25					
L	25	30	35	40	45	50	25	30	35	40	45	50
D±1.5	30						35					
L	25	30	35	40	45	50	25	30	35	40	45	50

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■ Nominal capacitance, rated voltage, rated ripple current and case size table

U_R(V) / C_R(uF) \ Item	10		16		25		35	
	D×L mm	I～	D×L mm	I～	D×L mm	I～	D×L mm	I～
2200							22×25	1120
2700							22×30	1340
3300					22×25	1310	22×35 25×25	1500 1350
3900					22×30 25×25	1480 1470	22×35 25×30 30×25	1640 1620 1620
4700			22×25	1420	22×30 25×25	1630 1610	22×40 25×35 30×25	1970 1950 1910
5600			22×30	1660	22×35 25×30 30×25	1850 1840 1840	22×45 25×35 30×30 35×25	2130 2090 2110 2090
6800	22×25	1510	22×30 25×25	1830 1810	22×40 25×35 35×25	2060 2050 2050	22×50 25×40 30×35	2400 2350 2380
8200	22×30 25×25	1750 1710	22×35 25×30 30×25	2000 1970 1970	22×45 25×35 30×30 35×25	2400 2300 2320 2300	25×50 30×35 35×30	2910 2900 2900
10000	22×30 25×25	1920 1950	22×40 25×30 30×25	2340 2300 2300	22×50 25×40 30×35	2630 2610 2670	30×40 35×35	3070 3050
12000	22×35 25×30 30×25	2110 2100 2100	22×45 25×35 30×30	2740 2580 2610	25×50 30×35 35×30	2950 2930 2930	30×50 35×40	3470 3450
15000	22×40 25×35 35×25	2530 2520 2520	22×50 25×40 30×35	2960 2940 2950	30×40 35×35	3310 3340	35×50	4500
18000	22×50 25×40 30×30	2860 2850 2830	25×50 30×35 35×30	3370 3320 3320	30×50 35×40	3870 3850		
22000	30×35 35×30	3220 3220	30×40 35×35	3900 3800	▲ Rated ripple current (mA rms) (105℃,120Hz)			

CD294Series

■ Nominal capacitance, rated voltage, rated ripple current and case size table

U_R(V) / C_R(uF) \ Item	50		63		80		100	
	D×L mm	I~	D×L mm	I~	D×L mm	I~	D×L mm	I~
390							22×25	640
560					22×25	760	22×30 25×25	820 800
680					22×30 25×25	870 860	22×35 25×30	920 910
820			22×25	920	22×30 25×25	960 950	22×40 25×35	1060 1030
1000			22×30 25×25	1170 1140	22×35 25×30	1120 1100	22×45 25×35 30×30	1140 1100 1130
1200	22×25	960	22×30 25×25	1290 1250	22×40 25×35 30×25	1270 1240 1200	22×50 25×40 30×35	1340 1320 1300
1500	22×30 25×25	1170 1140	22×35 25×30 30×25	1360 1340 1340	22×45 25×35 30×30 35×25	1530 1490 1510 1490	25×50 30×40 35×35	1540 1510 1530
1800	22×30 25×25	1220 1200	22×40 25×35 30×30	1550 1520 1570	22×50 25×40 30×35 35×30	1630 1620 1600 1600	30×45 35×35	1750 1660
2200	22×35 25×30 35×25	1400 1380 1360	22×50 25×40 30×30 35×25	1730 1740 1720 1700	25×50 30×40 35×30	1840 1820 1810	30×50 35×40	2050 2000
2700	22×40 25×30 30×25	1610 1570 1550	25×45 30×35 35×30	2030 2000 2000	30×45 35×35	2300 2200	35×50	2300
3300	25×35 30×30 35×25	1850 1870 1810	25×50 30×40 35×35	2240 2210 2230	30×50 35×40	2350 2320		
3900	25×40 30×35 35×30	2150 2200 2200	30×45 35×40	2500 2550	35×45	2760		
4700	25×45 30×35 35×30	2420 2400 2400	30×50 35×40	2820 2800	35×50	3200		
5600	25×50 30×40 35×35	2570 2540 2510	35×45	3100				
6800	30×50 35×40	2950 2910	35×50	3600				
8200	35×45	3470	Rated ripple current (mA rms) (105℃,120Hz)					
10000	35×50	3800						

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■ Nominal capacitance, rated voltage, rated ripple current and case size table

U_R(V) / C_R(uF) \ Item	160		180		200		250	
	D×L mm	I～	D×L mm	I～	D×L mm	I～	D×L mm	I～
100							22×25	450
150					22×25	600	22×30 25×25	580 580
180	22×25	650	22×25	650	22×30 25×25	690 680	22×35 25×30	650 640
220	22×30	760	22×30 25×25	760 750	22×30 25×25	760 760	22×40 25×30 30×25	750 730 730
270	22×30 25×25	830 820	22×35 25×30	860 850	22×35 25×30 30×25	870 870 870	22×45 25×35 30×30 35×25	890 830 880 830
330	25×25 25×30	940 930	22×40 25×30 30×25	980 960 950	22×40 25×35 30×30 35×25	990 1020 1040 1020	22×50 25×40 30×35 35×30	960 950 950 950
390	22×40 25×30 30×25	1120 1090 1090	22×40 25×35 30×30 35×25	1140 1130 1160 1130	22×45 25×35 30×30 35×25	1140 1110 1130 1110	25×45 30×35 35×30	1150 1100 1100
470	22×45 25×35 30×30 35×25	1260 1220 1240 1200	22×50 25×40 30×30	1260 1230 1200	22×50 25×40	1260 1220	25×50 30×40 35×35	1230 1220 1200
560	22×50 25×40 30×30 35×30	1370 1340 1300 1400	25×45 30×35 35×30	1450 1410 1410	25×50 30×35 35×30	1440 1420 1420	30×50 35×40	1490 1450
680	25×45 30×35 35×30	1530 1500 1500	25×50 30×40 35×35	1600 1590 1600	30×40 35×35	1630 1610	35×45	1800
820	25×50 35×40 35×35	1740 1710 1690	30×45 35×35	1890 1800	30×50 35×40	1820 1800	35×50	1900
1000	35×50 35×40	2040 2020	30×50 35×40	2100 2030	35×45	2150		
1200	35×45	2200	35×50	2400	35×50	2400		
1500	35×50	2600	↑ Rated ripple current (mA rms) (105℃,120Hz)					

CD294Series

■ Nominal capacitance, rated voltage, rated ripple current and case size table

U_R(V) / C_R(uF) \ Item	315		350		400		450	
	D×L mm	I~	D×L mm	I~	D×L mm	I~	D×L mm	I~
39	Rated ripple current (mA rms) (105℃,120Hz)				22×25	320		
47					22×30 25×25	360 360		
56	22×25	340	22×25	370	22×30 25×25	390 390	22×25	410
68	22×30 25×25	390 380	22×30	440	22×35 25×30	450 440	22×30 25×25	480 480
82	22×30 25×25	430 420	25×25 22×30	470 460	22×40 25×35 30×25	510 500 530	22×35	560
100	22×35 25×30 30×25	480 480 480	22×35 25×30 30×25	530 530 530	22×45 25×35 30×30 35×25	620 570 610 570	22×40 25×30 30×25	640 610 630
120	22×35 25×30 30×25	530 530 530	22×40 25×35 30×30 35×25	600 600 610 600	22×50 25×40 30×35 35×30	640 630 630 630	22×45 25×35	720 710
150	22×40 25×35 30×30 35×25	610 610 620 610	22×45 25×40 30×30 35×25	730 730 720 720	25×50 30×35 35×30	750 750 750	22×50 25×40 30×30 35×25	830 810 800 820
180	22×50 25×40 30×30 35×25	710 700 690 680	22×50 25×40 30×35 35×30	780 770 770 770	30×40 35×35	870 880	25×45 30×35	920 910
220	25×40 30×35 35×30	800 810 810	25×50 30×40 35×30	890 890 880	30×50 35×40	1010 1000	25×50 30×40 35×30	1050 1050 1030
270	25×50 30×40 35×35	900 890 890	30×45 35×35	1120 1100	35×45	1110	30×45 35×35	1210 1190
330	30×45 35×35	1200 1100	30×50 35×40	1220 1200	35×50	1300	30×50 35×40	1380 1380
390	30×50 35×40	1220 1200	35×45	1380			35×45	1550
470	35×50	1400	30×50	1600			35×50	1740