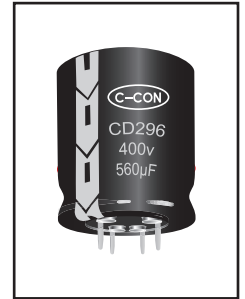


3000h at 105°C

- Long Life at High Temperature
- High Ripple Current
- Professional Power Supplies



SNAP-IN/LUG

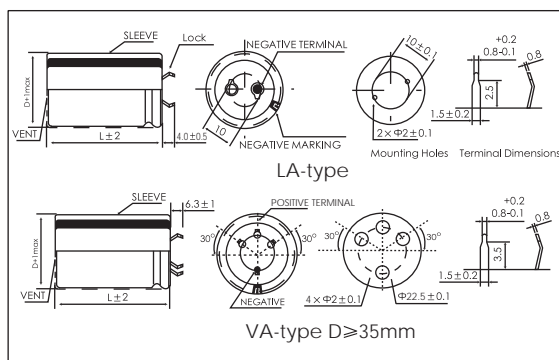


Items	Characteristics	
Operating Temperature Range (°C)	-25 ~ +105	
Voltage Range (V)	200 ~ 550	
Capacitance Range (μF)	100 ~ 2200	
Capacitance Tolerance (20°C, 120Hz)	± 20%	
Leakage Current (μA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller. C: Nominal Capacitance (μF) V: Rated Voltage (V)	
Dissipation Factor (20°C, 120Hz)	Rated Voltage (V)	200~400 420~550
	Tan δ (max)	0.15 0.20
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	200~550
	Z _{-25°C} / Z _{+20°C}	4

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	5000h	>200000h	3000h	4000h	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	U _R I _R 105°C	U _R 1.4 × I _R 40°C	U _R I _R 105°C	U _R I _R = 0 105°C	After test: U _R to be applied for 30min >24h before measurement

Dimensions

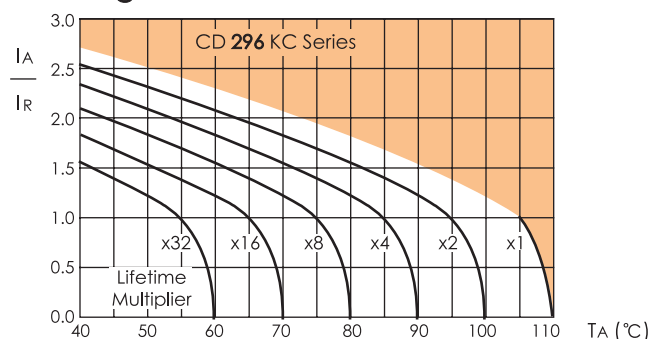
mm



Frequency Coefficient

Voltage (V)	Frequency					
	50/60Hz	120Hz	300Hz	1kHz	10kHz	≥50kHz
200 ~ 250	0.87	1.00	1.17	1.32	1.45	1.50
≥ 315	0.80	1.00	1.16	1.30	1.41	1.43

Lifetime Diagram



Temperature Coefficient

Temperature(°C)	+40	+55	+70	+85	+105
Coefficient	2.7	2.5	2.1	1.7	1.00

I_A = actual ripple current at 120Hz, I_R = rated ripple current at 120Hz, 105°C
Multiplier of Useful Life as a function of ambient temperature and ripple current load

Ratings for CD 296 Series

U _r (Surge Voltage) Code	Rated Capa- cittance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD x L
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)
200 (250) 2D	470	424	296	1.47	25×30
		424	296	1.56	30×25
	560	355	249	1.6	25×35
		355	249	1.65	30×30
	680	293	205	1.8	25×40
		293	205	1.82	30×30
	820	243	170	1.99	30×35
	1000	199	139	2.17	22×50
		199	139	2.21	30×40
	1200	166	116	2.28	25×45
		166	116	2.32	30×40
	1500	133	93	2.59	30×50
133		93	2.59	35×40	
1800	111	77	2.7	35×45	
2200	91	63	3.23	35×50	
250 (300) 2E	330	603	422	1.2	22×40
		603	422	1.3	25×30
	390	510	357	1.42	25×35
		424	296	1.47	25×40
	470	424	296	1.51	30×30
		355	249	1.59	25×45
	560	355	249	1.61	30×30
		293	205	1.66	25×50
	680	293	205	1.76	30×35
		243	170	1.83	30×40
	820	243	170	1.82	35×35
		199	139	1.87	30×50
	1000	199	139	1.99	35×40
		166	116	2.1	35×45
	1200	166	116	2.1	35×45
	1500	133	93	2.7	35×50
1800	111	77	2.9	35×55	
	111	77	2.92	35×60	
315 (365) 2F	180	1106	608	0.78	22×40
		1106	608	0.85	25×25
	220	905	498	0.91	22×45
		905	498	0.94	25×30
	270	737	406	1	25×35
		737	406	0.98	30×25
	330	603	332	1.13	30×30
	390	510	281	1.2	30×35
	470	424	233	1.28	30×35
		355	196	1.46	30×40
	680	293	161	1.85	30×45
		293	161	1.88	35×35
	820	242	133	2.1	30×50
		242	133	2.15	35×40
1000	199	109	2.42	30×55	
	199	109	2.47	35×45	
1200	166	91	2.6	35×50	
400 (450) 2G	120	1659	863	0.66	22×30
		1659	863	0.68	25×25
	150	1327	690	0.73	25×30
		1327	690	0.75	30×25
	180	1106	575	0.78	22×35
		1106	575	0.83	30×30
	220	905	471	0.87	25×40
		905	471	0.96	30×30
	270	737	383	0.94	22×50
		737	383	0.95	30×35
	330	603	314	1.11	25×50
		603	314	1.06	30×35
		603	314	1.09	35×30
	390	510	265	1.15	30×40
		510	265	1.26	35×35
	470	424	220	1.28	30×50
		424	220	1.31	35×40
	560	355	185	1.5	30×50
		355	185	1.65	35×45
	680	293	153	1.9	35×50
820	242	126	2.2	35×60	
	199	109	2.5	30×70	
1000	199	109	2.6	35×65	
450 (500) 2W	120	2212	1106	0.73	25×25
		1769	885	0.82	25×30
	180	1474	737	0.86	30×30
		1206	603	0.94	25×45
	220	1206	603	0.95	30×30
		983	492	1.11	30×30
	270	983	492	1.15	30×35
		804	402	1.25	30×40
	330	804	402	1.26	35×30
		681	340	1.31	30×40
	390	681	340	1.35	30×45
		681	340	1.36	35×35
470	565	282	1.5	30×50	

U _r (Surge Voltage) Code	Rated Capa- cittance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD x L
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)
450 (500) 2W	470	565	282	1.55	35×45
		473	237	1.65	30×50
	560	473	237	1.7	35×50
		391	196	1.95	35×50
	680	391	196	2	35×60
		324	162	2.15	35×60
	820	324	162	2.2	35×65
		1000	265	139	2.6
500 (550) 2H	100	2654	1327	0.67	22×35
	120	2212	1106	0.77	22×50
		2212	1106	0.81	25×35
	150	1769	885	0.82	25×40
		1769	885	0.85	30×30
	180	1474	737	0.98	25×50
		1474	737	1.01	30×35
	220	1206	603	1.12	30×35
		1206	603	1.18	35×30
		983	492	1.25	30×40
		983	492	1.29	35×35
	330	804	402	1.36	35×45
		390	681	340	1.54
	470	565	282	1.69	35×60
		560	473	237	1.9
	550 (600) 2Y	680	391	196	2.2
150		1769	885	0.86	30×35
		1474	737	1.06	30×40
180		1474	737	1.11	35×30
		1206	603	1.18	30×50
220		1206	603	1.23	35×35
		983	492	1.31	35×45
330		804	402	1.5	35×50
390	681	340	1.67	35×60	
470	565	282	1.9	35×60	
	565	282	1.95	35×70	
560	473	237	2.1	35×80	