

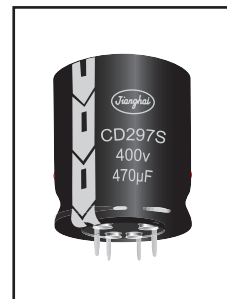
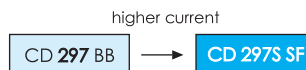
CD 297S SF SERIES



SNAP-IN/LUG

5000h at 105°C

- Long Life, high reliability
- High Ripple Current
- Solar inverter
- RoHS
- Excellent airtightness, adoption of special sealing process
- Longer useful life

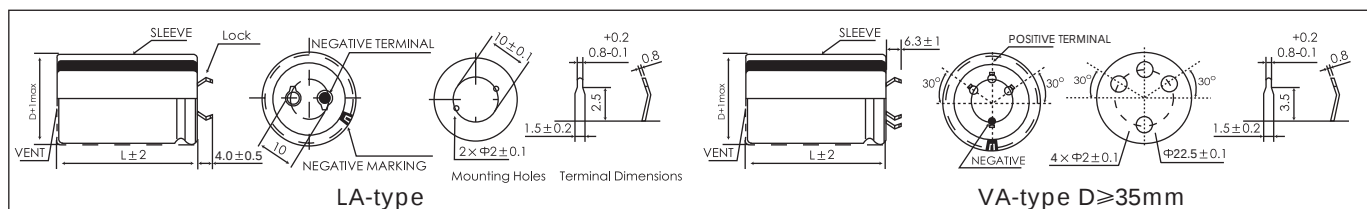


Items	Characteristics			
Operating Temperature Range (°C)	-40 ~ +105		-25 ~ +105	
Voltage Range (V)	160 ~ 420		450 ~ 550	
Capacitance Range (μF)	100 ~ 3300			
Capacitance Tolerance (20°C, 120Hz)	± 20%			
Leakage Current (μA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller. C: Nominal Capacitance (μF) V: Rated Voltage (V)			
Dissipation Factor (20°C, 120Hz)	WV (V)	160~420	450~500	550
	Tan δ	0.15	0.20	0.25
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	160~250	315~420	450~550
	Z _{-25℃} / Z _{+20℃}	4	7	10
	Z _{-40℃} / Z _{+20℃}	8	12	-

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	10000h	>250000h	5000h	5000h	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 $1.2 \times I_R$ 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 $U_R = 0$ $I_R = 0$ 105°C

Dimensions

mm



Frequency Coefficient

Frequency(Hz)		50/60	120	300	1K	10K	≥50K
Factor	160 ~ 250V	0.80	1.00	1.17	1.32	1.45	1.50
	315~550V	0.80	1.00	1.16	1.30	1.41	1.43

Temperature Coefficient

Temperature(°C)	+40	+55	+70	+85	+105
Factor	3.0	2.8	2.5	2.0	1.0

Ratings for CD 297S SF Series

U _r (Surge Voltage) Code	Rated Capa- citan- ce	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD x L	P/N	
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-	
160 (200) 2C	1000	199	119	2.4	22 × 40	ECS2CSF102M□□220040	
		199	119	2.4	25 × 35	ECS2CSF102M□□250035	
		199	119	2.5	30 × 25	ECS2CSF102M□□300025	
	1200	166	100	2.8	25 × 40	ECS2CSF122M□□250040	
		166	100	2.8	30 × 30	ECS2CSF122M□□300030	
		166	100	2.8	35 × 25	ECS2CSF122M□□350025	
	1500	133	80	3.1	25 × 45	ECS2CSF152M□□250045	
		133	80	3.1	25 × 50	ECS2CSF152M□□250050	
		133	80	3.2	30 × 35	ECS2CSF152M□□300035	
	1800	111	66	3.6	25 × 50	ECS2CSF182M□□250050	
		111	66	3.6	30 × 40	ECS2CSF182M□□300040	
		111	66	3.5	35 × 30	ECS2CSF182M□□350030	
	2200	90	54	4.1	30 × 45	ECS2CSF222M□□300045	
		90	54	4.1	30 × 50	ECS2CSF222M□□300050	
		90	54	4.0	35 × 35	ECS2CSF222M□□350035	
		90	54	4.0	35 × 50	ECS2CSF222M□□350050	
	2700	74	44	4.6	35 × 40	ECS2CSF272M□□350040	
		74	44	4.8	35 × 45	ECS2CSF272M□□350045	
		3300	60	36	5.4	35 × 50	ECS2CSF332M□□350050
	200 (250) 2D	680	293	176	1.9	22 × 40	ECS2DSF681M□□220040
			293	176	1.9	25 × 30	ECS2DSF681M□□250030
293			176	1.9	30 × 25	ECS2DSF681M□□300025	
820		243	146	2.2	22 × 45	ECS2DSF821M□□220045	
		243	146	2.2	25 × 35	ECS2DSF821M□□250035	
1000		199	119	2.5	25 × 40	ECS2DSF102M□□250040	
		199	119	2.5	30 × 30	ECS2DSF102M□□300030	
		199	119	2.7	35 × 25	ECS2DSF102M□□350025	
		199	119	2.7	35 × 30	ECS2DSF102M□□350030	
1200		166	100	2.7	25 × 45	ECS2DSF122M□□250045	
		166	100	2.8	30 × 35	ECS2DSF122M□□300035	
		166	100	2.8	30 × 50	ECS2DSF122M□□300050	
		166	100	3.0	35 × 30	ECS2DSF122M□□350030	
1500		133	80	3.3	30 × 40	ECS2DSF152M□□300040	
		133	80	3.3	30 × 45	ECS2DSF152M□□300045	
		133	80	3.4	35 × 35	ECS2DSF152M□□350035	
		111	66	3.7	30 × 50	ECS2DSF182M□□300050	
1800		111	66	3.8	35 × 40	ECS2DSF182M□□350040	
		111	66	3.8	35 × 45	ECS2DSF182M□□350045	
		2200	90	54	4.3	35 × 45	ECS2DSF222M□□350045
90			54	4.3	35 × 50	ECS2DSF222M□□350050	
2700	74	44	4.9	35 × 50	ECS2DSF272M□□350050		
250 (300) 2E	470	423	254	1.6	22 × 40	ECS2ESF471M□□220040	
		423	254	1.6	25 × 30	ECS2ESF471M□□250030	
	560	355	213	1.8	22 × 45	ECS2ESF561M□□220045	
		355	213	1.8	25 × 35	ECS2ESF561M□□250035	
		355	213	1.8	30 × 25	ECS2ESF561M□□300025	
	680	293	176	2.0	25 × 40	ECS2ESF681M□□250040	
		293	176	2.1	30 × 30	ECS2ESF681M□□300030	
		293	176	2.2	35 × 25	ECS2ESF681M□□350025	
	820	243	146	2.3	25 × 45	ECS2ESF821M□□250045	
		243	146	2.4	30 × 35	ECS2ESF821M□□300035	
		243	146	2.5	35 × 30	ECS2ESF821M□□350030	
	1000	199	119	2.7	30 × 40	ECS2ESF102M□□300040	
	1200	166	100	3.0	30 × 45	ECS2ESF122M□□300045	
		166	100	3.0	35 × 35	ECS2ESF122M□□350035	
		166	100	3.2	35 × 40	ECS2ESF122M□□350040	
	1500	133	80	3.6	35 × 45	ECS2ESF152M□□350045	
	1800	111	66	4.0	35 × 50	ECS2ESF182M□□350050	
315 (365) 2F	330	603	362	1.4	22 × 40	ECS2FSF331M□□220040	
	390	510	306	1.6	22 × 45	ECS2FSF391M□□220045	
		510	306	1.6	22 × 50	ECS2FSF391M□□220050	
		510	306	1.6	25 × 35	ECS2FSF391M□□250035	
	470	423	254	1.8	25 × 40	ECS2FSF471M□□250040	
		423	254	1.8	30 × 30	ECS2FSF471M□□300030	
		423	254	1.8	35 × 25	ECS2FSF471M□□350025	
	560	355	213	2.0	25 × 50	ECS2FSF561M□□250050	
		355	213	1.9	30 × 35	ECS2FSF561M□□300035	
		355	213	2.0	35 × 30	ECS2FSF561M□□350030	
	680	293	176	2.2	30 × 40	ECS2FSF681M□□300040	
		293	176	2.3	30 × 45	ECS2FSF681M□□300045	
293		176	2.2	35 × 35	ECS2FSF681M□□350035		

U _r (Surge Voltage) Code	Rated Capa- citan- ce	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD x L	P/N	
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-	
315 (365) 2F	820	243	146	2.5	30 × 50	ECS2FSF821M□□300050	
		243	146	2.6	35 × 40	ECS2FSF821M□□350040	
	1000	199	119	2.9	35 × 45	ECS2FSF102M□□350045	
		166	100	3.3	35 × 50	ECS2FSF122M□□350050	
	1200	166	100	3.3	35 × 55	ECS2FSF122M□□350055	
350 (400) 2V	220	905	543	1.0	22 × 40	ECS2VSF221M□□220040	
		905	543	1.0	25 × 30	ECS2VSF221M□□250030	
		905	543	1.0	30 × 25	ECS2VSF221M□□300025	
	270	737	442	1.3	22 × 45	ECS2VSF271M□□220045	
		737	442	1.3	22 × 50	ECS2VSF271M□□220050	
		737	442	1.3	25 × 35	ECS2VSF271M□□250035	
	330	737	442	1.3	30 × 30	ECS2VSF271M□□300030	
		603	362	1.4	22 × 50	ECS2VSF331M□□220050	
		603	362	1.4	25 × 40	ECS2VSF331M□□250040	
	390	603	362	1.4	30 × 30	ECS2VSF331M□□300030	
		510	306	1.6	25 × 40	ECS2VSF391M□□250040	
		510	306	1.6	25 × 45	ECS2VSF391M□□250045	
	470	510	306	1.6	30 × 35	ECS2VSF391M□□300035	
		423	254	1.8	25 × 45	ECS2VSF471M□□250045	
		423	254	1.8	30 × 35	ECS2VSF471M□□300035	
	560	423	254	1.8	35 × 35	ECS2VSF471M□□350035	
		355	213	2.0	30 × 45	ECS2VSF561M□□300045	
		355	213	2.0	35 × 35	ECS2VSF561M□□350035	
	680	293	176	2.4	30 × 50	ECS2VSF681M□□300050	
		293	176	2.4	35 × 40	ECS2VSF681M□□350040	
		243	146	2.6	35 × 45	ECS2VSF821M□□350045	
	820	243	146	2.6	35 × 50	ECS2VSF821M□□350050	
		199	119	2.8	35 × 50	ECS2VSF102M□□350050	
		400 (450) 2G	220	905	483	1.1	22 × 40
	905			483	1.1	25 × 30	ECS2GSF221M□□250030
	905			483	1.2	30 × 25	ECS2GSF221M□□300025
	270		737	393	1.3	22 × 50	ECS2GSF271M□□220050
			737	393	1.3	25 × 35	ECS2GSF271M□□250035
			737	393	1.3	30 × 30	ECS2GSF271M□□300030
	330		603	322	1.5	25 × 40	ECS2GSF331M□□250040
			603	322	1.4	30 × 30	ECS2GSF331M□□300030
			603	322	1.5	35 × 25	ECS2GSF331M□□350025
	390		510	272	1.6	25 × 45	ECS2GSF391M□□250045
			510	357	1.6	30 × 35	ECS2GSF391M□□300035
			510	272	1.7	35 × 30	ECS2GSF391M□□350030
470	423	226	1.8	30 × 45	ECS2GSF471M□□300045		
	423	226	1.9	35 × 35	ECS2GSF471M□□350035		
	355	190	2.1	30 × 50	ECS2GSF561M□□300050		
560	355	190	2.1	35 × 40	ECS2GSF561M□□350040		
	293	156	2.4	35 × 45	ECS2GSF681M□□350045		
	243	170	2.7	35 × 50	ECS2GSF821M□□350050		
1000	199	106	3.2	35 × 60	ECS2GSF102M□□350060		
1200	166	88	3.7	35 × 70	ECS2GSF122M□□350070		
420 (470) 2X	180	1106	627	1.0	22 × 40	ECS2XSF181M□□220040	
		1106	627	1.0	25 × 30	ECS2XSF181M□□250030	
		1106	627	1.1	30 × 25	ECS2XSF181M□□300025	
	220	905	513	1.2	22 × 45	ECS2XSF221M□□220045	
		905	513	1.2	22 × 50	ECS2XSF221M□□220050	
		905	513	1.2	25 × 35	ECS2XSF221M□□250035	
		905	513	1.2	30 × 30	ECS2XSF221M□□300030	
		737	418	1.3	25 × 40	ECS2XSF271M□□250040	
	270	737	418	1.3	30 × 30	ECS2XSF271M□□300030	
		737	418	1.4	35 × 25	ECS2XSF271M□□350025	
		603	342	1.5	25 × 50	ECS2XSF331M□□250050	
	330	603	342	1.5	30 × 35	ECS2XSF331M□□300035	
		603	342	1.6	35 × 30	ECS2XSF331M□□350030	
		510	289	1.7	30 × 40	ECS2XSF391M□□300040	
	390	510	289	1.7	35 × 30	ECS2XSF391M□□350030	
		510	289	1.7	35 × 35	ECS2XSF391M□□350035	
		423	240	1.9	30 × 50	ECS2XSF471M□□300050	
	470	423	240	2.0	35 × 40	ECS2XSF471M□□350040	
		355	201	2.2	35 × 40	ECS2XSF561M□□350040	
		293	166	2.5	35 × 50	ECS2XSF681M□□350050	
820	243	138	3.0	35 × 55	ECS2XSF821M□□350055		
1000	199	113	3.4	35 × 65	ECS2XSF102M□□350065		
1200	166	94	3.8	35 × 75	ECS2XSF122M□□350075		

CD 297S SF SERIES

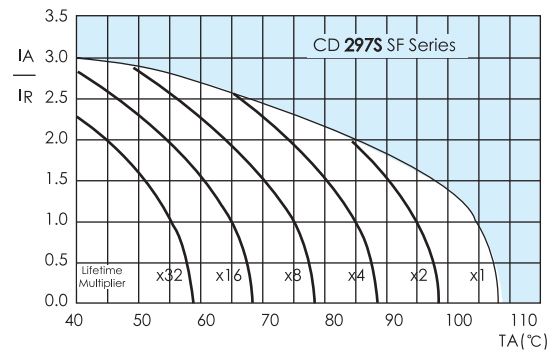


SNAP-IN/LUG

Ratings for CD 297S SF Series

U _s (Surge Voltage) Code	Rated Capa- cance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-
450 (500) 2W	150	1769	708	0.9	22 × 40	ECS2WSF151M□□220040
		1769	708	0.9	25 × 30	ECS2WSF151M□□250030
	180	1474	590	1.1	22 × 45	ECS2WSF181M□□220045
		1474	590	1.1	25 × 35	ECS2WSF181M□□250035
		1474	590	1.1	30 × 25	ECS2WSF181M□□300025
	220	1206	483	1.2	22 × 50	ECS2WSF221M□□220050
		1206	483	1.2	25 × 40	ECS2WSF221M□□250040
		1206	483	1.2	30 × 30	ECS2WSF221M□□300030
	270	983	393	1.3	25 × 45	ECS2WSF271M□□250045
		983	393	1.3	30 × 35	ECS2WSF271M□□300035
		983	393	1.4	35 × 30	ECS2WSF271M□□350030
	330	804	322	1.5	30 × 40	ECS2WSF331M□□300040
		680	272	1.7	30 × 45	ECS2WSF391M□□300045
		680	272	1.7	35 × 35	ECS2WSF391M□□350035
	470	680	272	1.7	35 × 40	ECS2WSF391M□□350040
		565	226	2.0	35 × 40	ECS2WSF471M□□350040
		565	226	2.0	35 × 45	ECS2WSF471M□□350045
	560	565	226	2.0	35 × 50	ECS2WSF471M□□350050
		474	190	2.2	35 × 50	ECS2WSF561M□□350050
		390	156	2.6	35 × 55	ECS2WSF681M□□350055
	680	390	156	2.6	35 × 60	ECS2WSF681M□□350060
		324	129	3.0	35 × 65	ECS2WSF821M□□350065
		265	106	3.4	35 × 75	ECS2WSF102M□□350075
	1000	265	106	3.4	40 × 65	ECS2WSF102M□□400065
		221	88	3.7	40 × 75	ECS2WSF122M□□400075
500 (550) 2H	100	2654	1062	0.8	25 × 30	ECS2HSF101M□□250030
		2212	885	0.9	25 × 35	ECS2HSF121M□□250035
		2212	885	0.9	30 × 30	ECS2HSF121M□□300030
	150	1769	708	1.0	30 × 30	ECS2HSF151M□□300030
		1474	590	1.2	30 × 35	ECS2HSF181M□□300035
		1206	483	1.3	25 × 50	ECS2HSF221M□□250050
	220	1206	483	1.3	30 × 40	ECS2HSF221M□□300040
		1206	483	1.2	35 × 35	ECS2HSF221M□□350035
		983	393	1.5	30 × 50	ECS2HSF271M□□300050
	270	983	393	1.5	35 × 40	ECS2HSF271M□□350040
		804	322	1.6	35 × 45	ECS2HSF331M□□350045
		680	272	1.8	35 × 50	ECS2HSF391M□□350050
	470	565	226	2.0	35 × 55	ECS2HSF471M□□350055
		565	226	2.0	35 × 60	ECS2HSF471M□□350060
		474	190	2.2	35 × 65	ECS2HSF561M□□350065
	560	474	190	2.2	40 × 50	ECS2HSF561M□□400050
		390	156	2.4	35 × 70	ECS2HSF681M□□350070
		390	156	2.4	40 × 60	ECS2HSF681M□□400060
	680	324	129	2.6	40 × 70	ECS2HSF821M□□400070
		265	106	2.8	45 × 70	ECS2HSF102M□□450070
		221	88	3.2	45 × 80	ECS2HSF122M□□450080
	1200	1229	590	1.3	35 × 50	ECS2YSF271M□□350050
		1005	483	1.4	35 × 60	ECS2YSF331M□□350060
550 (600) 2Y	330	851	408	1.6	35 × 65	ECS2YSF391M□□350065
		706	339	1.8	35 × 70	ECS2YSF471M□□350070
		706	339	1.8	40 × 65	ECS2YSF471M□□400065
	470	592	284	2.0	35 × 80	ECS2YSF561M□□350080
		592	284	2.0	40 × 70	ECS2YSF561M□□400070
	560	488	234	2.3	40 × 80	ECS2YSF681M□□400080
		488	234	2.3	45 × 70	ECS2YSF681M□□450070
	680					

Lifetime Diagram



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

Customer products are available on request.