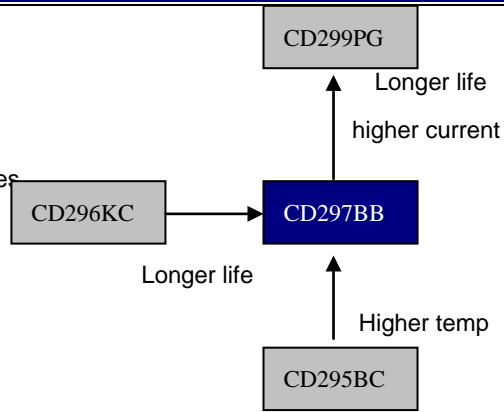


CD 297 BB SERIES



5000h at 105°C

- Extended lifetime at 105°C
- High Ripple Current
- High Professional Switch Mode Power Supplies
- Frequency Converters



Items	Characteristics	
Operating Temperature Range(°C)	-40 ~ +105	-25~+105
Voltage Range (V)	10~ 100	160~500
Capacitance Range(µF)	47~56000	
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)	10 16 25 35 50 63 80 100 160~400 450~500
	Tan δ(max)	0.55 0.50 0.45 0.40 0.35 0.30 0.25 0.20 0.15 0.20
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage(V)	10~100 160~250 315~500
	Z _{-25°C} /Z _{+20°C}	4 3 8
	Z _{-40°C} /Z _{+20°C}	15 - -

	Useful Life		Load Life	Endurance Test	Shelf Life
Life Time	7000h	>200000h	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	U _R	U _R	U _R	U _R	After test: U _R to be applied for 30min>24h before measurement
Applied Current	I _R	1.6×I _R	I _R	I _R =0	
Applied Temperature	105°C	40°C	105°C	105°C	

CD 297 BB SERIES



Frequency coefficient

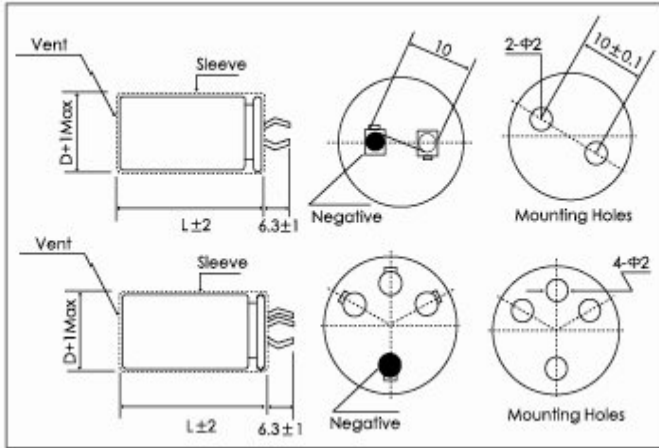
Frequency Rated Voltage(v)	50/60Hz	120Hz	500Hz	1kHz	10kHz	≥ 40kHz
10~100	0.90	1.00	1.10	1.15	1.15	1.15
160~250	0.80	1.00	1.20	1.30	1.45	1.50
≥315	0.80	1.00	1.20	1.30	1.42	1.45

Temperature Coefficient

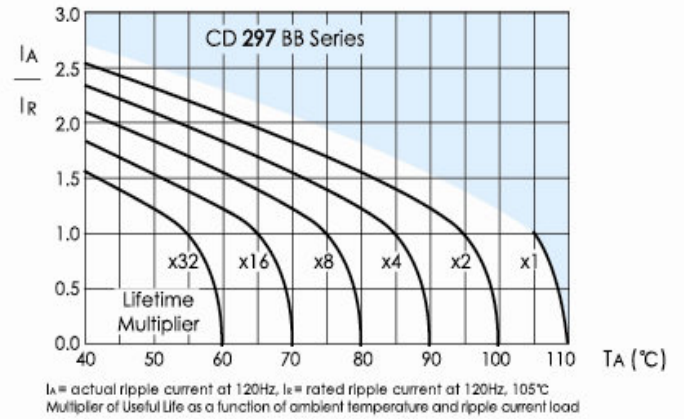
Temperature(°C)	+40	+55	+70	+80	+105
coefficient	2.7	2.5	2.1	1.7	1.0

Dimensions

mm



Lifetime Diagram



Ratings for CD 297 BB Series

U _R (Surge Voltage) C ^o code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size Φ DxL	P/N
(v)	(μF)	(m Ω)	(m Ω)	(Arms)	(mm)	-
10 (1 3) 1A	8200	89	62	1.36	22x25	ECS1ABB822M□□220025
	10000	73	51	1.65	22x30	ECS1ABB103M□□220030
		61	43	1.85	22x35	ECS1ABB123M□□220035
	12000	61	43	1.82	25x25	ECS1ABB123M□□250025
		49	34	2.12	22X40	ECS1ABB153M□□220040
	15000	49	34	2.11	25x30	ECS1ABB153M□□250030
		49	34	2.14	30x25	ECS1ABB153M□□300025
	18000	41	28	2.4	22X45	ECS1ABB183M□□220045
		41	28	2.32	25x35	ECS1ABB183M□□250035
	22000	33	23	2.59	25X40	ECS1ABB223M□□250040
		33	23	2.73	30x30	ECS1ABB223M□□300030
	27000	27	19	3.01	25X45	ECS1ABB273M□□250045
		27	19	3.13	30x35	ECS1ABB273M□□300035
		27	19	3.05	35x30	ECS1ABB273M□□350030
	33000	22	16	3.43	25x50	ECS1ABBB33M□□250050
		22	16	3.53	30X40	ECS1ABBB33M□□300040
		22	16	3.49	35x35	ECS1ABBB33M□□350035
	39000	19	13	3.78	30X45	ECS1ABBB93M□□300045
19		13	3.96	35X40	ECS1ABBB93M□□350040	
47000	16	11	4.58	30x50	ECS1ABB473M□□300050	
	16	11	4.6	35X45	ECS1ABB473M□□350045	
56000	13	9	5.06	35X50	ECS1ABB563M□□350050	
16 (2 0) 1C	5600	119	83	1.44	22x25	ECS1CBB562M□□220025
	6800	98	68	1.66	22X30	ECS1CBB682M□□220030
	8200	81	57	1.67	25x25	ECS1CBB822M□□250025
		66	46	2.08	22x35	ECS1CBB103M□□220035
	10000	66	46	2.07	25x30	ECS1CBB103M□□250030
		55	39	2.36	22x40	ECS1CBB123M□□220040
55	39	2.37	25x35	ECS1CBB123M□□250035		

U _R (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size Φ DxL	P/N
(v)	(μF)	(m Ω)	(m Ω)	(Arms)	(mm)	-
50 (6 3) 1H	1500	310	217	1.21	22x25	ECS1HBB152M□□220025
	2200	211	148	1.52	22x30	ECS1HBB222M□□220030
		211	148	1.46	25x25	ECS1HBB222M□□250025
	2700	172	120	1.77	22x35	ECS1HBB272M□□220035
		172	120	1.76	25x30	ECS1HBB272M□□250030
	3300	141	99	2.02	22x40	ECS1HBB332M□□220040
		141	99	1.92	30x25	ECS1HBB332M□□300025
	3900	119	83	2.27	22X45	ECS1HBB92M□□220045
		119	83	2.2	25x35	ECS1HBB92M□□250035
		119	83	2.19	30x30	ECS1HBB92M□□300030
	4700	99	69	2.43	25x40	ECS1HBB472M□□250040
	5600	83	58	2.72	25x45	ECS1HBB562M□□250045
		83	58	2.58	30x35	ECS1HBB562M□□300035
		83	58	2.35	35x30	ECS1HBB562M□□350030
	6800	68	48	3.01	30X40	ECS1HBB682M□□300040
		68	48	2.91	35x35	ECS1HBB682M□□350035
	8200	57	40	3.63	30x50	ECS1HBB822M□□300050
		57	40	3.36	35x40	ECS1HBB822M□□350040
10000	46	33	3.79	35x45	ECS1HBB103M□□350045	
12000	39	27	4.06	35x50	ECS1HBB123M□□350050	
63 (7 9) 1J	1000	398	279	1.1	22x25	ECS1JBB102M□□220025
	1500	265	186	1.41	22x30	ECS1JBB152M□□220030
		265	186	1.38	25x25	ECS1JBB152M□□250025
	1800	221	155	1.62	22x35	ECS1JBB182M□□220035
		221	155	1.63	25x30	ECS1JBB182M□□250030
	2200	181	127	1.85	22x40	ECS1JBB222M□□220040
		181	127	1.80	30x25	ECS1JBB222M□□300025
	2700	147	103	2.1	22x45	ECS1JBB272M□□220045
		147	103	2.03	25x35	ECS1JBB272M□□250035

CD 297 BB SERIES



25 (3 2) 1E	15000	55	39	2.33	30x25	ECS1CBB123M□□300025	80 (10 0) 1K	147	103	2.01	30x30	ECS1JBB272M□□300030			
		44	31	2.69	22X45	ECS1CBB153M□□220045									
		44	31	2.72	25x40	ECS1CBB153M□□250040									
		44	31	2.54	30x30	ECS1CBB153M□□300030									
	18000	37	26	3.06	25X45	ECS1CBB183M□□250045			4700	85	59	2.82	30X40	ECS1JBB472M□□300040	
		37	26	3.02	30x35	ECS1CBB183M□□300035									
		37	26	3.09	35x30	ECS1CBB183M□□350030									
	22000	30	21	3.39	25x50	ECS1CBB223M□□250050					5600	71	50	3.22	30x45
		30	21	3.46	30x40	ECS1CBB223M□□300040									
	27000	25	17	3.88	30X45	ECS1CBB273M□□300045				6800	59	41	3.61	35X45	ECS1JBB682M□□350045
		25	17	3.85	35x35	ECS1CBB273M□□350035									
	33000	20	14	4.33	30x50	ECS1CBBB33M□□300050				8200	49	34	3.94	35x50	ECS1JBB822M□□350050
		20	14	4.33	35x40	ECS1CBBB33M□□350040									
	35 (4 4) 1V	3900	17	12	4.96	35X45		ECS1CBBB93M□□350045		1500	221	155	1.7	22x40	ECS1KB B152M□□220040
			14	10	5.49	35x50		ECS1CBB473M□□350050							
		107	75	1.77	22x35	ECS1EBB562M□□220035									
		4700	127	89	1.55	22x30		ECS1EBB472M□□220030	1800			184	129	1.91	22X45
			107	75	1.76	25x25		ECS1EBB562M□□250025							
5600		88	62	2.02	22x40	ECS1EBB682M□□220040	2200	151	106		2.22	25X45	ECS1KBB222M□□250045		
		88	62	1.88	25x30	ECS1EBB682M□□250030									
6800		73	51	2.27	22X45	ECS1EBB822M□□220045	2700	123	86		2.50	30x35	ECS1KBB272M□□300035		
		73	51	2.18	25x35	ECS1EBB822M□□250035									
		73	51	2.19	30x25	ECS1EBB822M□□300025									
8200		60	42	2.56	22x50	ECS1EBB103M□□220050	3300	101	70		2.69	30x40	ECS1KBBB32 M□□300040		
		60	42	2.53	25x40	ECS1EBB103M□□250040									
		60	42	2.38	30x30	ECS1EBB103M□□300030									
10000		50	35	2.79	25x45	ECS1EBB123M□□250045	3900	85	60	2.94	30x45	ECS1KBBB92M□□300045			
		50	35	2.7	30x35	ECS1EBB123M□□300035									
		50	35	2.76	35x30	ECS1EBB123M□□350030									
15000		40	28	3.13	30x40	ECS EBB 153M□□300040	4700	71	49	3.44	35X45	ECS1KBB472M□□350045			
		33	23	3.52	30x45	ECS1EBB183M□□300045									
18000	33	23	3.5	35X35	ECS EBB 183M□□350035	5600	59	42	3.72	35x50	ECS1KBB562M□□350050				
	27	19	3.92	30x50	ECS1EBB223M□□300050										
27000	27	19	3.95	35x40	ECS1EBB223M□□350040	560	474	332	1.01	22x25	ECS2ABB561 M□□220025				
	22	16	4.72	35X50	ECS1EBB273M□□350050										
	680	324	227	1.33	22x35							ECS2ABB821M□□220035			
		324	227	1.26	25x25							ECS2ABB821 M□□250025			
	1000	265	186	1.56	22x40		ECS2ABB102M□□220040	820	265	186	1.52	25x30	ECS2ABB102M□□250030		
		265	186	1.47	30x25		ECS2ABB102M□□300025								
		265	186	1.47	30x25		ECS2ABB102M□□300025								
	1200	221	155	1.76	22X45		ECS2ABB122M□□220045	1200	221	155	1.76	25x35	ECS2ABB122M□□250035		
		221	155	1.76	25x35		ECS2ABB122M□□250035								
		221	155	1.76	30x30		ECS2ABB122M□□300030								
	1500	177	124	2	22x50		ECS2ABB152M□□220050	1500	177	124	2.03	25x40	ECS2ABB152M□□250040		
		177	124	2	22x50		ECS2ABB152M□□220050								
177		124	2.03	25x40	ECS2ABB152M□□250040										
1800	147	103	2.29	25X45	ECS2ABB182M□□250045	1800	147	103	2.19	30x35	ECS2ABB182M□□300035				
	147	103	2.19	30x35	ECS2ABB182M□□300035										
	147	103	2.15	35x30	ECS2ABB182M□□350030										
2200	121	84	2.52	30X40	ECS2ABB222M□□300040	2200	121	84	2.48	35x35	ECS2ABB222M□□350035				
	121	84	2.48	35x35	ECS2ABB222M□□350035										
2700	98	69	2.86	30X45	ECS2ABB272M□□300045	2700	98	69	2.87	35X40	ECS2ABB272M□□350040				
	98	69	2.87	35X40	ECS2ABB272M□□350040										
3300	80	56	3.25	35X45	ECS2ABBB32M□□350045	3300	80	56	3.25	35X45	ECS2ABBB32M□□350045				
	80	56	3.25	35X45	ECS2ABBB32M□□350045										
3900	68	48	3.56	35x50	ECS2ABBB92 M□□350050	3900	68	48	3.56	35x50	ECS2ABBB92 M□□350050				
	68	48	3.56	35x50	ECS2ABBB92 M□□350050										
160 (20 0) 2C	220	905	633	0.63	22X25	ECS2CBB221M□□220025	160 (20 0) 2C	220	905	633	0.63	22X25	ECS2CBB221M□□220025		
	270	737	516	0.76	22x30	ECS2CBB271 M□□220030									
	603	422	0.9	22x35	ECS2CBBB31 M□□220035										
	603	422	0.84	25X25	ECS2CBBB31 M□□250025										

CD 297 BB SERIES



U _R (Surge Voltage) C ^R ode	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size ΦDxL	P/N
(v)	(μF)	-	(mΩ)	(Arms)	(mm)	-
160 (200) 2C	390	510	357	0.97	25x30	ECS2CBBB91M□□250030
		510	357	1	30x25	ECS2CBBB91M□□300025
	470	424	296	1.11	22X40	ECS2CBB471M□□220040
		424	296	1.14	25x35	ECS2CBB471M□□250035
	470	424	296	1.17	30x30	ECS2CBB471M□□300030
		424	296	1.17	30x30	ECS2CBB471M□□300030
	560	355	249	1.26	22x45	ECS2CBB561M□□220045
	680	293	205	1.44	22X50	ECS2CBB681M□□220050
		293	205	1.43	25X40	ECS2CBB681M□□250040
		293	205	1.5	30x35	ECS2CBB681M□□300035
	820	243	170	1.63	25x45	ECS2CBB821M□□250045
		243	170	1.66	30X40	ECS2CBB821M□□300040
		243	170	1.63	35x30	ECS2CBB821M□□350030
	1000	199	139	1.89	30x45	ECS2CBB102M□□300045
		199	139	1.89	35x35	ECS2CBB102M□□350035
	1200	166	116	2.16	30x50	ECS2CBB122M□□300050
		166	116	2.23	35x40	ECS2CBB122M□□350040
	1500	133	93	2.61	35x45	ECS2CBB152M□□350045
1800	111	77	2.97	35x50	ECS2CBB182M□□350050	
180 (225) 2K	220	905	633	0.63	22X25	ECS2KBB221M□□220025
	270	737	516	0.76	22x30	ECS2KBB271M□□220030
		737	516	0.76	25x25	ECS2KBB271M□□250025
	330	603	422	0.9	22x35	ECS2KBB31M□□220035
		603	422	0.9	25X30	ECS2KBB31M□□250030
	390	510	357	1.03	22x40	ECS2KBBB91M□□220040
		510	357	1.06	25x35	ECS2KBBB91M□□250035
		510	357	1.02	30X25	ECS2KBBB91M□□300025
	470	424	296	1.17	22X45	ECS2KBB471M□□220045
		424	296	1.17	30x30	ECS2KBB471M□□300030
	560	355	249	1.32	22x50	ECS2KBB561M□□220050
		355	249	1.32	25X40	ECS2KBB561M□□250040
		355	249	1.33	30x35	ECS2KBB561M□□300035
	680	293	205	1.51	25x45	ECS2KBB681M□□250045
		293	205	1.49	35x30	ECS2KBB681M□□350030
	820	243	170	1.71	25x50	ECS2KBB821M□□250050
		243	170	1.74	30x40	ECS2KBB821M□□300040
		243	170	1.75	35x35	ECS2KBB821M□□350035
	1000	199	139	2.01	30X45	ECS2KBB102M□□300045
		199	139	2.07	35X40	ECS2KBB102M□□350040
	1200	166	116	2.25	30x50	ECS2KBB122M□□300050
		166	116	2.23	35x45	ECS2KBB122M□□350045
	1500	133	93	2.76	35X50	ECS2KBB152M□□350050
	200 (250) 2D	180	1106	774	0.57	22X25
220		905	633	0.7	22x30	ECS2DBB221M□□220030
270		737	516	0.83	22x35	ECS2DBB271M□□220035
		737	516	0.76	25X25	ECS2DBB271M□□250025
330		603	422	0.96	22X40	ECS2DBBB31M□□220040
		603	422	0.9	25x30	ECS2DBBB31M□□250030
390		510	357	1.06	25x35	ECS2DBBB91M□□250035
		510	357	1.02	30X25	ECS2DBBB91M□□300025
470		424	296	1.17	22X45	ECS2DBB471M□□220045
		424	296	1.22	25x40	ECS2DBB471M□□250040
		424	296	1.17	30x30	ECS2DBB471M□□300030
560		355	249	1.39	25X45	ECS2DBB561M□□250045
		355	249	1.38	30x35	ECS2DBB561M□□300035
680		293	205	1.58	25x50	ECS2DBB681M□□250050
		293	205	1.61	30x40	ECS2DBB681M□□300040
		293	205	1.49	35x30	ECS2DBB681M□□350030

U _R (Surge Voltage) e) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size ΦDxL	P/N	
(v)	(μF)	-	(mΩ)	(Arms)	(mm)	-	
250 (300) 2E	150	1327	929	0.52	22x25	ECS2EBB151M□□220025	
	180	1106	774	0.64	22x30	ECS2EBB181M□□220030	
		1106	774	0.62	25X25	ECS2EBB181M□□250025	
	220	905	633	0.76	22x35	ECS2EBB221M□□220035	
		905	633	0.76	25x30	ECS2EBB221M□□250030	
	270	737	516	0.88	22x40	ECS2EBB271M□□220040	
		737	516	0.9	25X35	ECS2EBB271M□□250035	
		737	516	0.85	30x25	ECS2EBB271M□□300025	
	330	603	422	1.01	22x45	ECS2EBBB31M□□220045	
		603	422	1	30x30	ECS2EBBB31M□□300030	
	390	510	357	1.13	22x50	ECS2EBB391M□□220050	
		510	357	1.13	25x40	ECS2EBBB91M□□250040	
		510	357	1.15	30x35	ECS2EBB391M□□300035	
	470	424	296	1.29	25X45	ECS2EBB471M□□250045	
		424	296	1.24	35x30	ECS2EBB471M□□350030	
	560	355	249	1.45	25x50	ECS2EB561M□□250050	
		355	249	1.48	30x40	ECS2EBB561M□□300040	
		355	249	1.49	35x35	ECS2EBB561M□□350035	
	680	293	205	1.71	30X45	ECS2EBB681M□□300045	
		293	205	1.74	35x40	ECS2EBB681M□□350040	
	820	243	170	1.94	30x50	ECS2EB5821M□□300050	
	1000	199	139	2.2	35X45	ECS2EBB102M□□350045	
	315 (365) 2F	68	3903	2732	0.32	22x25	ECS2FBB680M□□220025
		82	3237	2266	0.38	22x30	ECS2FBB820M□□220030
100		2654	1858	0.41	25x25	ECS2FBB101M□□250025	
		120	2212	1548	0.48	22X35	ECS2FBB121M□□220035
2212			1548	0.49	25x30	ECS2FBB121M□□250030	
150		1769	1239	0.56	22x40	ECS2FBB151M□□220040	
		1769	1239	0.51	30x25	ECS2FBB151M□□300025	
180		1474	1032	0.63	22X45	ECS2FBB181M□□220045	
		1474	1032	0.62	25x35	ECS2FBB181M□□250035	
		1474	1032	0.63	30x30	ECS2FBB181M□□300030	
220		1206	844	0.72	22x50	ECS2FBB221M□□220050	
		1206	844	0.71	25X40	ECS2FBB221M□□250040	
		1206	844	0.74	30x35	ECS2FBB221M□□300035	
270		983	688	0.81	25x45	ECS2FBB271M□□250045	
		983	688	0.85	30x40	ECS2FBB271M□□300040	
		983	688	0.82	35X30	ECS2FBB271M□□350030	
330		804	563	0.92	25x50	ECS2FBB331M□□250050	
		804	563	0.9	35x35	ECS2FBB331M□□350035	
390	681	476	1.04	30X45	ECS2FBBB91M□□300045		
	681	476	1.05	35X40	ECS2FBBB91M□□350040		
470	565	395	1.15	30x50	ECS2FBB471M□□300050		
	565	395	1.18	35x45	ECS2FBB471M□□350045		
560	474	332	1.34	35X50	ECS2FBB561M□□350050		
350 (400) 2V	68	3903	2732	0.34	22x25	ECS2VBB680M□□220025	
	82	3237	2266	0.4	22x30	ECS2VBB820M□□220030	
	100	2654	1858	0.47	25x25	ECS2VBB101M□□250025	
	120	2212	1548	0.52	22X35	ECS2VBB121M□□220035	
		2212	1548	0.53	25x30	ECS2VBB121M□□250030	
	150	1769	1239	0.59	22x40	ECS2VBB151M□□220040	
		1769	1239	0.6	25X35	ECS2VBB151M□□250035	
	180	1474	1032	0.68	22x45	ECS2VBB181M□□220045	
		1474	1032	0.7	25x40	ECS2VBB181M□□250040	
	220	1206	844	0.78	22x50	ECS2VBB221M□□220050	

CD 297 BB SERIES



820	243	170	1.85	30x45	ECS2DBB821M□□300045	270	1206	844	0.82	25x45	ECS2VBB221M□□250045
	243	170	1.75	35x35	ECS2DBB821M□□350035		1206	844	0.82	30x35	ECS2VBB221M□□300035
1000	199	139	2.11	30x50	ECS2DBB102M□□300050	330	983	688	0.94	25x50	ECS2VBB271M□□250050
	199	139	2.07	35x40	ECS2DBB102M□□350040		983	688	0.93	30x40	ECS2VBB271M□□300040
1200	166	116	2.38	35x45	ECS2DBB122M□□350045		983	688	0.9	35x30	ECS2VBB271M□□350030
1500	133	93	2.76	35x50	ECS2DBB152M□□350050	804	563	1.05	30x45	ECS2VBB331M□□300045	
						804	563	1.01	35x35	ECS2VBB331M□□350035	

Ratings for CD 297 BB Series

U _R (Surge Voltage) C ^o de	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 105°C, 100kHz	Size Φ D×L	P/N
(v)	(μF)	-	(mΩ)	(Arms)	(mm)	-
350 (400) 2V	390	681	476	1.18	30x50	ECS2VBB391M□□300050
		681	476	1.13	35X40	ECS2VBB391M□□350040
	470	565	395	1.26	35X45	ECS2VBB471M□□350045
	560	474	332	1.39	35X50	ECS2VBB561M□□350050
400 (450) 2G	68	3903	2732	0.38	22x30	ECS2GBB680M□□220030
	82	3237	2266	0.41	25x25	ECS2GBB820M□□250025
	100	2654	1858	0.46	22x35	ECS2GBB101M□□220035
		2654	1858	0.48	25x30	ECS2GBB101M□□250030
		2654	1858	0.48	30x25	ECS2GBB101M□□300025
	120	2212	1548	0.53	22X40	ECS2GBB121M□□220040
		2212	1548	0.55	25X35	ECS2GBB121M□□250035
		2212	1548	0.56	30x30	ECS2GBB121M□□300030
	150	1769	1239	0.63	22x50	ECS2GBB151M□□220050
		1769	1239	0.65	25X40	ECS2GBB151M□□250040
	180	1474	1032	0.72	25x45	ECS2GBB181M□□250045
		1474	1032	0.74	30x35	ECS2GBB181M□□300035
	220	1206	844	0.79	25x50	ECS2GBB221M□□250050
		1206	844	0.85	30X40	ECS2GBB221M□□300040
		1206	844	0.89	35x30	ECS2GBB221M□□350030
	270	983	688	0.98	30x45	ECS2GBB271M□□300045
		983	688	0.96	35X35	ECS2GBB271M□□350035
	330	804	563	1.12	30x50	ECS2GBB331M□□300050
		804	563	1.12	35X40	ECS2GBB331M□□350040
	390	681	476	1.27	35X45	ECS2GBB391M□□350045
470	565	395	1.33	35x50	ECS2GBB471M□□350050	
450 (500) 2W	68	3903	2732	0.38	22x30	ECS2WBB680M□□220030
	82	3237	2266	0.44	22x35	ECS2WBB820M□□220035
		3237	2266	0.45	25X30	ECS2WBB820M□□250030
		3237	2266	0.46	30x25	ECS2WBB820M□□300025
	100	2654	1858	0.5	22X40	ECS2WBB101M□□220040
		2654	1858	0.52	25x35	ECS2WBB101M□□250035
	120	2212	1548	0.58	22x50	ECS2WBB121M□□220050
		2212	1548	0.58	25x40	ECS2WBB121M□□250040
		2212	1548	0.58	30x30	ECS2WBB121M□□300030
	150	1769	1239	0.66	25X45	ECS2WBB151M□□250045
		1769	1239	0.68	30x35	ECS2WBB151M□□300035
	180	1474	1032	0.74	25X50	ECS2WBB181M□□250050
		1474	1032	0.77	30x40	ECS2WBB181M□□300040
		1474	1032	0.77	35x30	ECS2WBB181M□□350030
	220	1206	844	0.88	30X45	ECS2WBB221M□□300045
		1206	844	0.88	35x35	ECS2WBB221M□□350035
	270	983	688	0.99	30x50	ECS2WBB271M□□300050
		983	688	1.01	35x40	ECS2WBB271M□□350040
	330	804	563	1.15	35X45	ECS2WBB331M□□350045
	390	681	476	1.28	35x50	ECS2WBB391M□□350050
470	565	394	1.50	35x55	ECS2WBB471M□□350055	
500	47	5647	2823	0.41	22x30	ECS2HBB470M□□220030
	56	4739	2370	0.47	22x30	ECS2HBB560M□□220030
	68	3903	1951	0.54	22x35	ECS2HBB680M□□220035

CD 297 BB SERIES



(550) 2H		3903	1951	0.54	25x30	ECS2HBB680M□□250030
	82	3237	1618	0.62	22X40	ECS2HBB820M□□220040
		3237	1618	0.62	25x35	ECS2HBB820M□□250035
	100	2654	1327	0.67	22x45	ECS2HBB101M□□220045
		2654	1327	0.67	25X40	ECS2HBB101M□□250040
		2654	1327	0.67	30x30	ECS2HBB101M□□300030
	120	2212	1106	0.77	22x50	ECS2HBB121M□□220050
		2212	1106	0.74	25X40	ECS2HBB121M□□250040
		2212	1106	0.77	30X35	ECS2HBB121M□□300035
		2212	1106	0.80	35x30	ECS2HBB121M□□350030
	150	1769	885	0.82	25x45	ECS2HBB151M□□250045
		1769	885	0.85	30X40	ECS2HBB151M□□300040
		1769	885	0.67	35x30	ECS2HBB151M□□350030
		1769	885	0.85	35x35	ECS2HBB151M□□350035
	180	1474	737	0.98	25x50	ECS2HBB181M□□250050
		1474	737	1.01	30X45	ECS2HBB181M□□300045
	220	1206	603	1.12	30x50	ECS2HBB221M□□300050
		1206	603	0.94	35x35	ECS2HBB221M□□350035
		1206	603	1.12	35X40	ECS2HBB221M□□350040
	270	983	492	1.25	30x50	ECS2HBB271M□□300050
		983	492	1.25	35X40	ECS2HBB271M□□350040
	330	804	402	1.36	35X45	ECS2HBB331M□□350045
	390	681	340	1.54	35X50	ECS2HBB391M□□350050
	470	565	282	1.69	35x60	ECS2HBB471M□□350060

Customer products are available on request