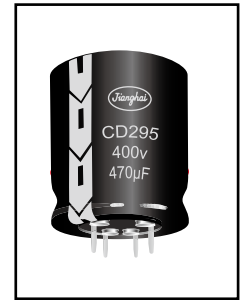
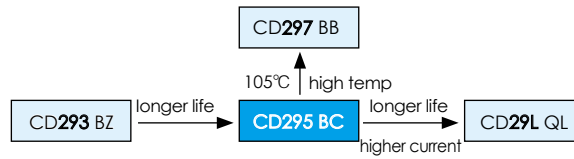


CD295 BC SERIES



5000h at 85°C

- Long Life at 85°C
- High Ripple Current
- Long Life General Industrial Electronics

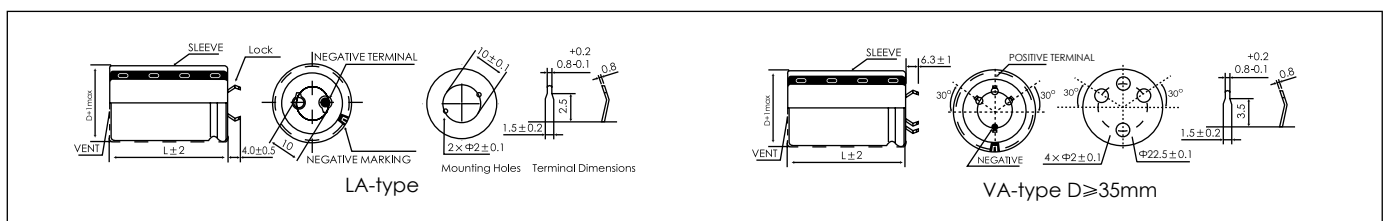


Items	Characteristics	
Operating Temperature Range (°C)	-40 ~ +85	-25 ~ +85
Voltage range (V)	160 ~ 400	420 ~ 500
Capacitance Range (μF)	100 ~ 2200	
Capacitance Tolerance (20°C, 120Hz)	± 20%	
Leakage Current (μA)	After 5 minutes at 20°C application of rated voltage, leakage current is not more than 0.01CV or 1.5mA, whichever is smaller. C: Nominal Capacitance (μF) V: Rated Voltage (V)	
Dissipation Factor (20°C, 120Hz)	0.15	
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)	160~200 250~400 420~500
	$Z_{-25^{\circ}\text{C}} / Z_{+20^{\circ}\text{C}}$	3 4
	$Z_{-40^{\circ}\text{C}} / Z_{+20^{\circ}\text{C}}$	6 8 -

	Useful Life		Load Life	Endurance Test	Shelf Life
Life Time	6000h	≥ 100000h	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 130% of specified value	Not more than 200% of specified value
Condition: Applied Voltage Applied Current Applied Temperature	U_R I_R 85°C	U_R $1.4 \times I_R$ 40°C	U_R I_R 85°C	U_R $I_R = 0$ 85°C	$U_R = 0$ $I_R = 0$ 85°C After test: U_R to be applied for 30 min > 24h before measurement

Dimensions

mm



Frequency Coefficient

Frequency	50/60Hz	120Hz	300Hz	1kHz	10kHz	≥ 50kHz
Voltage (V) ≥ 160	0.80	1.00	1.16	1.30	1.41	1.43

Temperature Coefficient

Temperature (°C)	+40	+55	+70	+85
Rated Voltage (V) ≥ 160	1.7	1.5	1.3	1.0

Ratings for CD295 BC Series

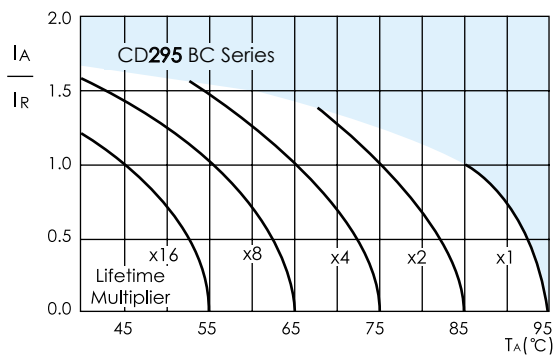
U _r (Surge Voltage) Code	Rated Capaci- tance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size ΦD x L	P/N	
(V)	(μF)	(mΩ)	(mΩ)	(Arms)	(mm)	-	
160 (200) 2C	220	905	633	1	22X25	EC52CBC221M □□ 220025	
	270	737	516	1.1	22X25	EC52CBC271M □□ 220025	
	330	603	422	1.3	22X25	EC52CBC331M □□ 220025	
	390	510	357	1.5	22X30	EC52CBC391M □□ 220030	
	470	510	357	1.5	25X25	EC52CBC391M □□ 250025	
		424	297	1.7	25X25	EC52CBC471M □□ 250025	
	560	355	249	1.9	22X35	EC52CBC561M □□ 220035	
		355	249	1.9	25X30	EC52CBC561M □□ 250030	
	680	293	205	2.1	22X40	EC52CBC681M □□ 220040	
		293	205	2.2	25X35	EC52CBC681M □□ 250035	
	820	243	170	2.4	25X40	EC52CBC821M □□ 250040	
		243	170	2.5	30X30	EC52CBC821M □□ 300030	
	1000	199	139	2.7	25X45	EC52CBC102M □□ 250045	
		199	139	2.8	30X35	EC52CBC102M □□ 300035	
		199	139	2.7	35X30	EC52CBC102M □□ 350030	
	1200	166	116	3.1	25X50	EC52CBC122M □□ 250050	
		166	116	3.2	30X40	EC52CBC122M □□ 300040	
		166	116	3	35X35	EC52CBC122M □□ 350035	
	1500	133	93	3.7	30X45	EC52CBC152M □□ 300045	
		133	93	3.5	35X40	EC52CBC152M □□ 350040	
	1800	111	77	3.9	35X45	EC52CBC182M □□ 350045	
	2200	91	63	4.5	35X50	EC52CBC222M □□ 350050	
	270	737	516	1.2	22X25	EC52KBC271M □□ 220025	
	330	603	422	1.4	22X30	EC52KBC331M □□ 220030	
	390	510	357	1.5	25X25	EC52KBC391M □□ 250025	
	180 (225) 2K	470	424	296	1.7	22X35	EC52KBC471M □□ 220035
			424	296	1.7	25X30	EC52KBC471M □□ 250030
			424	296	1.8	30X25	EC52KBC471M □□ 300025
		560	355	249	1.9	22X40	EC52KBC561M □□ 220040
			355	249	2	25X35	EC52KBC561M □□ 250035
		680	293	205	2.2	25X40	EC52KBC681M □□ 250040
			293	205	2.3	30X30	EC52KBC681M □□ 300030
		820	243	170	2.5	25X45	EC52KBC821M □□ 250045
			243	170	2.6	30X35	EC52KBC821M □□ 300035
			243	170	2.5	35X30	EC52KBC821M □□ 350030
		1000	199	139	2.9	25X50	EC52KBC102M □□ 250050
199			139	2.9	30X40	EC52KBC102M □□ 300040	
1200		166	116	3.3	30X45	EC52KBC122M □□ 300045	
		166	116	3.1	35X35	EC52KBC122M □□ 350035	
1500		133	93	3.6	35X45	EC52KBC152M □□ 350045	
1800		111	77	4.1	35X50	EC52KBC182M □□ 350050	
200 (250) 2D		220	905	633	1.1	22X25	EC52DBC221M □□ 220025
		270	737	516	1.2	22X25	EC52DBC271M □□ 220025
	330	603	422	1.4	22X30	EC52DBC331M □□ 220030	
		603	422	1.4	25X25	EC52DBC331M □□ 250025	
	390	510	357	1.6	22X35	EC52DBC391M □□ 220035	
		510	357	1.6	25X30	EC52DBC391M □□ 250030	
	470	424	296	1.8	22X40	EC52DBC471M □□ 220040	
		424	296	1.9	30X25	EC52DBC471M □□ 300025	
	560	355	249	2	25X35	EC52DBC561M □□ 250035	
		355	249	2.1	30X30	EC52DBC561M □□ 300030	
	680	293	205	2.3	25X40	EC52DBC681M □□ 250040	
		293	205	2.4	30X35	EC52DBC681M □□ 300035	
	820	243	170	2.6	25X50	EC52DBC821M □□ 250050	
		243	170	2.7	30X40	EC52DBC821M □□ 300040	
		243	170	2.5	35X30	EC52DBC821M □□ 350030	
	1000	199	139	3.1	30X45	EC52DBC102M □□ 300045	
		199	139	2.8	35X35	EC52DBC102M □□ 350035	
	1200	166	116	3.4	30X50	EC52DBC122M □□ 300050	
		166	116	3.2	35X40	EC52DBC122M □□ 350040	
	1500	133	93	3.8	35X50	EC52DBC152M □□ 350050	
250 (300) 2E	330	603	422	1.4	22X40	EC52EBC331M □□ 220040	
		603	422	1.4	25X30	EC52EBC331M □□ 250030	
		510	357	1.6	22X45	EC52EBC391M □□ 220045	
	390	510	357	1.6	25X35	EC52EBC391M □□ 250035	
		424	296	1.8	25X40	EC52EBC471M □□ 250040	
	470	424	296	1.8	30X30	EC52EBC471M □□ 300030	
		355	249	2	25X45	EC52EBC561M □□ 250045	
	560	355	249	2	30X35	EC52EBC561M □□ 300035	
		293	205	2.3	30X40	EC52EBC681M □□ 300040	
	680	293	205	2.4	35X30	EC52EBC681M □□ 350030	
		243	170	2.6	30X45	EC52EBC821M □□ 300045	
	820	243	170	2.6	35X35	EC52EBC821M □□ 350035	
		199	139	3	35X40	EC52EBC102M □□ 350040	
	1000	199	139	3	35X40	EC52EBC102M □□ 350040	
	1200	166	116	3.4	35X45	EC52EBC122M □□ 350045	
	315 (365) 2F	180	1106	774	0.96	22X35	EC52FBC181M □□ 220035
1106			774	0.96	25X30	EC52FBC181M □□ 250030	
220		905	633	1.1	22X40	EC52FBC221M □□ 220040	
		905	633	1.1	25X35	EC52FBC221M □□ 250035	
270		737	516	1.3	25X40	EC52FBC271M □□ 250040	
		737	516	1.3	30X30	EC52FBC271M □□ 300030	
330		603	422	1.4	25X45	EC52FBC331M □□ 250045	
		603	422	1.4	30X35	EC52FBC331M □□ 300035	
390		510	357	1.6	25X50	EC52FBC391M □□ 250050	
		510	357	1.6	30X40	EC52FBC391M □□ 300040	
510		357	1.6	35X30	EC52FBC391M □□ 350030		
315 (365) 2F		470	424	296	1.8	30X45	EC52FBC471M □□ 300045
	424		296	1.8	30X30	EC52FBC471M □□ 300030	
	560	355	249	2	30X50	EC52FBC561M □□ 300050	
		355	249	2	30X35	EC52FBC561M □□ 300035	
	680	293	205	2.3	30X40	EC52FBC681M □□ 300040	
		293	205	2.4	35X30	EC52FBC681M □□ 350030	
	820	243	170	2.6	30X45	EC52FBC821M □□ 300045	
		243	170	2.6	35X35	EC52FBC821M □□ 350035	
	1000	199	139	3	35X40	EC52FBC102M □□ 350040	
		199	139	3	35X40	EC52FBC102M □□ 350040	
	1200	166	116	3.4	35X45	EC52FBC122M □□ 350045	
	315 (365) 2F	180	1106	774	0.96	22X35	EC52FBC181M □□ 220035
1106			774	0.96	25X30	EC52FBC181M □□ 250030	
220		905	633	1.1	22X40	EC52FBC221M □□ 220040	
		905	633	1.1	25X35	EC52FBC221M □□ 250035	
270		737	516	1.3	25X40	EC52FBC271M □□ 250040	
		737	516	1.3	30X30	EC52FBC271M □□ 300030	
330		603	422	1.4	25X45	EC52FBC331M □□ 250045	
		603	422	1.4	30X35	EC52FBC331M □□ 300035	
390		510	357	1.6	25X50	EC52FBC391M □□ 250050	
		510	357	1.6	30X40	EC52FBC391M □□ 300040	
510		357	1.6	35X30	EC52FBC391M □□ 350030		
315 (365) 2F		470	424	296	1.8	30X45	EC52FBC471M □□ 300045
	424		296	1.8	30X30	EC52FBC471M □□ 300030	
	560	355	249	2	30X50	EC52FBC561M □□ 300050	
		355	249	2	30X35	EC52FBC561M □□ 300035	
	680	293	205	2.3	30X40	EC52FBC681M □□ 300040	
		293	205	2.4	35X30	EC52FBC681M □□ 350030	
	820	243	170	2.6	30X45	EC52FBC821M □□ 300045	
		243	170	2.6	35X35	EC52FBC821M □□ 350035	
	1000	199	139	3	35X40	EC52FBC102M □□ 350040	
		199	139	3	35X40	EC52FBC102M □□ 350040	
	1200	166	116	3.4	35X45	EC52FBC122M □□ 350045	
	315 (365) 2F	180	1106	774	0.96	22X35	EC52FBC181M □□ 220035
1106			774	0.96	25X30	EC52FBC181M □□ 250030	
220		905	633	1.1	22X40	EC52FBC221M □□ 220040	
		905	633	1.1	25X35	EC52FBC221M □□ 250035	
270		737	516	1.3	25X40	EC52FBC271M □□ 250040	
		737	516	1.3	30X30	EC52FBC271M □□ 300030	
330		603	422	1.4	25X45	EC52FBC331M □□ 250045	
		603	422	1.4	30X35	EC52FBC331M □□ 300035	
390		510	357	1.6	25X50	EC52FBC391M □□ 250050	
		510	357	1.6	30X40	EC52FBC391M □□ 300040	
510		357	1.6	35X30	EC52FBC391M □□ 350030		
315 (365) 2F		470	424	296	1.8	30X45	EC52FBC471M □□ 300045
	424		296	1.8	30X30	EC52FBC471M □□ 300030	
	560	355	249	2	30X50	EC52FBC561M □□ 300050	
		355	249	2	30X35	EC52FBC561M □□ 300035	
	680	293	205	2.3	30X40	EC52FBC681M □□ 300040	
		293	205	2.4	35X30	EC52FBC681M □□ 350030	
	820	243	170	2.6	30X45	EC52FBC821M □□ 300045	
		243	170	2.6	35X35	EC52FBC821M □□ 350035	
	1000	199	139	3	35X40	EC52FBC102M □□ 350040	
		199	139	3	35X40	EC52FBC102M □□ 350040	
	1200	166	116	3.4	35X45	EC52FBC122M □□ 350045	
	315 (365) 2F	180	1106	774	0.96	22X35	EC52FBC181M □□ 220035
1106			774	0.96	25X30	EC52FBC181M □□ 250030	
220		905	633	1.1	22X40	EC52FBC221M □□ 220040	
		905	633	1.1	25X35	EC52FBC221M □□ 250035	
270		737	516	1.3	25X40	EC52FBC271M □□ 250040	
		737	516	1.3	30X30	EC52FBC271M □□ 300030	
330		603	422	1.4	25X45	EC52FBC331M □□ 250045	
		603	422	1.4	30X35	EC52FBC331M □□ 300035	
390		510	357	1.6	25X50	EC52FBC391M □□ 250050	
		510	357	1.6	30X40	EC52FBC391M □□ 300040	
510		357	1.6	35X30	EC52FBC391M □□ 350030		
315 (365) 2F		470	424	296	1.8	30X45	EC52FBC471M □□ 300045
	424		296	1.8	30X30	EC52FBC471M □□ 300030	
	560	355	249	2	30X50	EC52FBC561M □□ 300050	
		355	249	2	30X35	EC52FBC561M □□ 300035	
	680	293	205	2.3	30X40	EC52FBC681M □□ 300040	
		293	205	2.4	35X30	EC52FBC681M □□ 350030	
	820	243	170	2.6	30X45	EC52FBC821M □□ 300045	

Ratings for CD295 BC Series

U_R (Surge Voltage) Code	Rated Capa- citance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C, 120Hz	Size $\Phi D \times L$	P/N
(V)	(μF)	(m Ω)	(m Ω)	(Arms)	(mm)	-
500 (550) 2H	470	424	339	2.5	35X45	ECS2HBC471M □□ 350045
	560	356	285	2.8	35X50	ECS2HBC561M □□ 350050
	680	293	235	3.2	35X55	ECS2HBC681M □□ 350055
	820	242	194	3.5	35X60	ECS2HBC821M □□ 350060

Customer products are available on request.

Life Time Diagram



I_A = actual ripple current at 120Hz, I_R = rated ripple current at 120Hz, 85°C
Multiplier of Useful Life as a function of ambient temperature and ripple current load