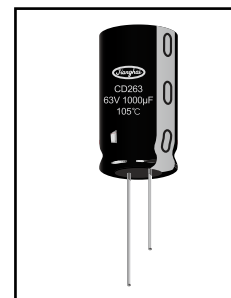
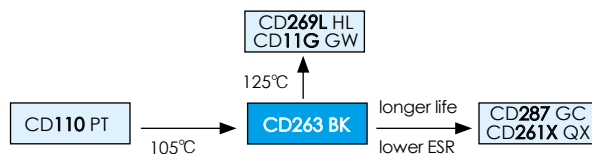


2000h at 105°C

- Standard 105°C

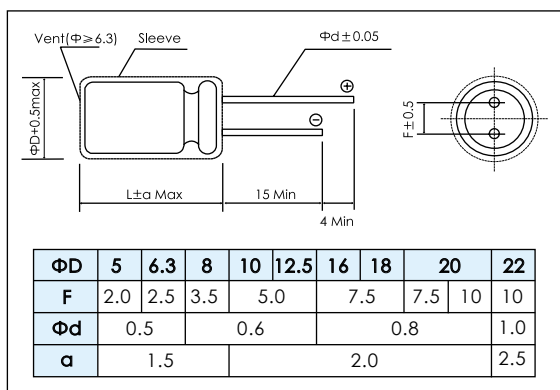


Items	Characteristics																			
Operating Temperature Range (℃)	-40 ~ +105									-25 ~ +105										
Voltage Range (V)	6.3 ~ 250									315 ~ 550										
Capacitance Range (μF)	0.1 ~ 15000																			
Capacitance Tolerance (20℃ , 120Hz)	± 20%																			
Leakage Current (μA)	6.3~100V									160~550V										
	After 2 minute at 20℃ application of rated voltage, leakage current is not more than 0.01 CV or 3, whichever is greater.									After 1 minute at 20℃ application of rated voltage, leakage current is not more than: CV ≤ 1000 : 0.1CV+40 CV > 1000 : 0.04CV+100										
	C: Nominal Capacitance (μF) V: Rated Voltage (V)																			
Dissipation Factor (20℃ , 120Hz)	Rated Voltage (V)		6.3	10	16	25	35	50	63	100	160	200	250	315	350	400	420	450	500	550
	Tan δ (max)		0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.15			0.20						
	When nominal capacitance is over 1000μF, tan δ shall be added 0.02 to the listed value with increase of every 1000μF																			
Stability at Low Temperature (Impedance Ratio at 120Hz)	Rated Voltage (V)		6.3	10	16	25	35	50	63	100	160	200	250	315	350	400	420	450	500	550
	Z _{-25℃} / Z _{+20℃}		4	3	2						3						6			
	Z _{-40℃} / Z _{+20℃}		8	6	4	3						8			-					

	Useful Life		Load Life	Endurance Test	Shelf Life	
Lifetime	3000h	> 100000h	2000h	2000h	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 $\pm 30\%$ of initial value		Within $\pm 20\%$ of initial value	Within $\pm 20\%$ of initial value	Within $\pm 20\%$ of initial value	
Dissipation Factor	Not more than 300% of specified value		Not more than 200% of specified value	Not more than 150% 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 x I _R 40°C	U _R I _R 105°C	U _R I _R = 0 105°C	U _R = 0 I _R = 0 105°C	After test: U _R to be applied for 30 min > 24h before measurement

Dimensions

mm



Frequency Coefficient

Rated Voltage (V)	Frequency	50/60Hz	120Hz	1kHz	10kHz	50kHz	100kHz
	Cap (μF)						
6.3 ~ 16	0.1 ~ 4.7	0.32	0.4	0.7	0.8	0.92	1.0
	10 ~ 4.7	0.40	0.5	0.8	0.9	0.96	1.0
	100 ~ 220	0.56	0.7	0.9	0.9	0.96	1.0
	330 ~ 1000	0.64	0.8	0.9	1.0	1.0	1.0
	2200 ~ 15000	0.72	0.9	1.0	1.0	1.0	1.0
160 ~ 550	0.47 ~ 10	0.80	1.0	1.75	2.0	2.4	2.5
	22 ~ 56	0.80	1.0	1.6	1.8	1.9	2.0
	68 ~ 220	0.80	1.0	1.3	1.4	1.6	1.65

Temperature Coefficient

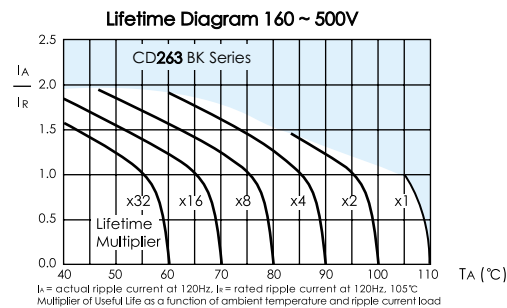
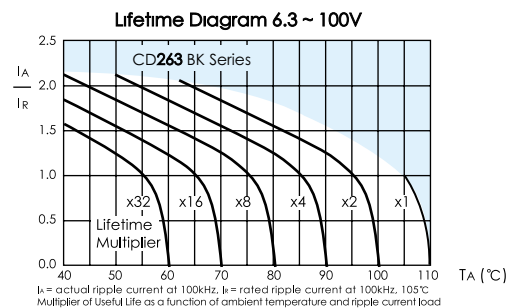
Temperature(℃)	+70	+85	+105
Rated Voltage(V)			
6.3 ~ 100	2.0	1.7	1.0
160 ~ 550	1.8	1.4	1.0

Ratings for CD263 BK Series

U _r (Surge Voltage) Code	Rated Capa- citance	Max.ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(Ω)	(mAms)	(mm)	-
6.3 (7.2) 0J	33	8.8	2.5	105	5X11.5	ECROJBK330M □□ 050011
	47	6.2	1.5	120	5X11.5	ECROJBK470M □□ 050011
	100	2.9	1.2	130	5X11.5	ECROJBK101M □□ 050011
	220	1.3	0.87	180	6.3X11.5	ECROJBK221M □□ 063011
	330	0.9	0.58	220	6.3X11.5	ECROJBK331M □□ 063011
	470	0.6	0.39	315	8X11.5	ECROJBK471M □□ 080011
	1000	0.29	0.23	500	10X12.5	ECROJBK102M □□ 100012
	2200	0.14	0.095	1000	12.5X20	ECROJBK222M □□ 125020
	3300	0.105	0.09	1050	12.5X20	ECROJBK332M □□ 125020
	4700	0.079	0.061	1670	16X25	ECROJBK472M □□ 160025
	6800	0.062	0.056	1740	16X25	ECROJBK682M □□ 160025
	10000	0.053	0.045	2110	16X31.5	ECROJBK103M □□ 160031
	15000	0.044	0.036	2580	18X35.5	ECROJBK153M □□ 180035
	22	11.5	2.5	92	5X11.5	ECR1ABK220M □□ 050011
	33	7.6	1.9	105	5X11.5	ECR1ABK330M □□ 050011
10 (13) 1A	47	5.4	1.5	120	5X11.5	ECR1ABK470M □□ 050011
	100	2.5	1.2	130	5X11.5	ECR1ABK101M □□ 050011
	220	1.1	0.58	220	6.3X11.5	ECR1ABK221M □□ 063011
	330	0.76	0.47	265	8X11.5	ECR1ABK331M □□ 080011
	470	0.54	0.39	315	8X11.5	ECR1ABK471M □□ 080011
	1000	0.25	0.18	615	10X16	ECR1ABK102M □□ 100016
	2200	0.13	0.09	1050	12.5X20	ECR1ABK222M □□ 125020
	3300	0.09	0.068	1300	12.5X25	ECR1ABK332M □□ 125025
	4700	0.07	0.056	1740	16X25	ECR1ABK472M □□ 160025
	6800	0.06	0.045	2110	16X31.5	ECR1ABK682M □□ 160031
	10000	0.05	0.036	2580	18X35.5	ECR1ABK103M □□ 180035
	10	21.2	2.5	92	5X11.5	ECR1CBK100M □□ 050011
	22	9.7	1.9	105	5X11.5	ECR1CBK220M □□ 050011
	33	6.4	1.5	120	5X11.5	ECR1CBK330M □□ 050011
	47	4.5	1.2	130	5X11.5	ECR1CBK470M □□ 050011
16 (20) 1C	100	2.1	0.58	220	6.3X11.5	ECR1CBK101M □□ 063011
	220	0.97	0.47	290	8X11.5	ECR1CBK221M □□ 080011
	330	0.64	0.39	315	8X11.5	ECR1CBK331M □□ 080011
	470	0.45	0.35	400	8X11.5	ECR1CBK471M □□ 080011
		0.45	0.23	500	10X12.5	ECR1CBK471M □□ 100012
		0.21	0.16	660	10X16	ECR1CBK102M □□ 100016
	1000	0.21	0.12	825	10X20	ECR1CBK102M □□ 100020
	2200	0.11	0.068	1300	12.5X25	ECR1CBK222M □□ 125025
	3300	0.08	0.056	1740	16X25	ECR1CBK332M □□ 160025
	4700	0.06	0.045	2110	16X31.5	ECR1CBK472M □□ 160031
	6800	0.05	0.036	2580	18X35.5	ECR1CBK682M □□ 180035
	4.7	39.5	3	85	5X11.5	ECR1EBK477M □□ 050011
	10	18.6	2.5	92	5X11.5	ECR1EBK100M □□ 050011
	22	8.4	1.9	105	5X11.5	ECR1EBK220M □□ 050011
	33	5.6	1.5	120	5X11.5	ECR1EBK330M □□ 050011
25 (32) 1E	47	4	1.2	130	5X11.5	ECR1EBK470M □□ 050011
	100	1.9	0.58	220	6.3X11.5	ECR1EBK101M □□ 063011
	220	0.84	0.39	315	8X11.5	ECR1EBK221M □□ 080011
	330	0.56	0.23	500	10X12.5	ECR1EBK331M □□ 100025
	470	0.4	0.21	492	10X12.5	ECR1EBK471M □□ 100012
		0.4	0.18	615	10X16	ECR1EBK471M □□ 100016
		0.19	0.12	840	10X20	ECR1EBK102M □□ 100020
	1000	0.19	0.09	1050	12.5X20	ECR1EBK102M □□ 125020
	2200	0.1	0.056	1740	16X25	ECR1EBK222M □□ 160025
	3300	0.07	0.045	2110	16X31.5	ECR1EBK332M □□ 160031
	4700	0.06	0.036	2580	18X35.5	ECR1EBK472M □□ 180035
	4.7	33.9	2.5	92	5X11.5	ECR1VBK477M □□ 050011
	10	15.9	1.8	105	5X11.5	ECR1VBK100M □□ 050011
	22	7.2	1.5	120	5X11.5	ECR1VBK220M □□ 050011
	33	4.8	1.5	130	5X11.5	ECR1VBK330M □□ 050011
35 (44) 1V	47	3.4	0.58	220	6.3X11.5	ECR1VBK470M □□ 063011
	100	1.6	0.39	315	8X11.5	ECR1VBK101M □□ 080011
		0.72	0.35	400	8X11.5	ECR1VBK221M □□ 080011
	220	0.72	0.23	500	10X12.5	ECR1VBK221M □□ 100012
	330	0.48	0.18	615	10X16	ECR1VBK331M □□ 100016
	470	0.34	0.12	825	10X20	ECR1VBK471M □□ 100020
	1000	0.16	0.09	1040	12.5X20	ECR1VBK102M □□ 125020
		0.16	0.068	1300	12.5X25	ECR1VBK102M □□ 125025
	2200	0.08	0.045	2110	16X31.5	ECR1VBK222M □□ 160031
	3300	0.06	0.036	2580	18X35.5	ECR1VBK332M □□ 180035
	0.1	1327	18	10	5X11.5	ECR1HBK010M □□ 050011
	0.22	603	13	15	5X11.5	ECR1HBK222M □□ 050011
	0.33	402	10	18	5X11.5	ECR1HBK333M □□ 050011
	0.47	282	7	23	5X11.5	ECR1HBK477M □□ 050011

U _r (Surge Voltage) Code	Rated Capa- citance	Max.ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(Ω)	(mAms)	(mm)	-
50 (63) 1H	1	133	4.9	35	5X11.5	ECR1HBK010M □□ 050011
	2.2	60	4.2	53	5X11.5	ECR1HBK2R2M □□ 050011
	3.3	40	3.9	65	5X11.5	ECR1HBK3R3M □□ 050011
	4.7	28	3.6	82	5X11.5	ECR1HBK4R7M □□ 050011
	10	13	2.7	100	5X11.5	ECR1HBK100M □□ 050011
	22	6	1.9	125	5X11.5	ECR1HBK220M □□ 050011
	33	4	1.1	195	6.3X11.5	ECR1HBK330M □□ 063011
	47	2.8	0.9	245	6.3X11.5	ECR1HBK470M □□ 063011
	100	1.3	0.5	385	8X11.5	ECR1HBK101M □□ 080011
	220	0.6	0.27	505	10X16	ECR1HBK221M □□ 100016
	330	0.4	0.18	675	10X20	ECR1HBK331M □□ 100020
	470	0.28	0.16	716	10X20	ECR1HBK471M □□ 100020
		0.28	0.12	895	12.5X20	ECR1HBK471M □□ 125020
	1000	0.13	0.076	1495	16X25	ECR1HBK102M □□ 160025
	2200	0.07	0.05	2190	18X35.5	ECR1HBK222M □□ 180035
63 (79) 1J	4.7	25	5.8	74	5X11.5	ECR1JBK4R7M □□ 050011
	10	12	3.6	95	5X11.5	ECR1JBK100M □□ 050011
	22	5	2.1	130	6.3X11.5	ECR1JBK220M □□ 063011
	33	4	1.7	160	6.3X11.5	ECR1JBK330M □□ 063011
	47	2.5	1.2	305	8X11.5	ECR1JBK470M □□ 080011
	100	1.2	0.65	395	10X12.5	ECR1JBK101M □□ 100012
	220	0.54	0.32	505	10X20	ECR1JBK221M □□ 100020
	330	0.36	0.22	660	12.5X20	ECR1JBK331M □□ 125020
	470	0.25	0.16	850	12.5X25	ECR1JBK471M □□ 125025
	1000	0.12	0.098	1430	16X31.5	ECR1JBK102M □□ 160031
	0.47	226	13	30	5X11.5	ECR2ABK4R7M □□ 050011
	1	106	11	45	5X11.5	ECR2ABK010M □□ 050011
	2.2	48	9.2	60	5X11.5	ECR2ABK2R2M □□ 050011
	3.3	32	7.2	67	5X11.5	ECR2ABK3R3M □□ 050011
	4.7	23	6.3	75	5X11.5	ECR2ABK4R7M □□ 050011
100 (125) 2A	10	11	3.3	110	6.3X11.5	ECR2ABK100M □□ 063011
	22	5	1.4	165	8X11.5	ECR2ABK220M □□ 080011
	33	3.2	0.94	305	10X12.5	ECR2ABK330M □□ 100012
	47	2.3	0.68	320	10X16	ECR2ABK470M □□ 100016
	100	1.1	0.28	585	12.5X20	ECR2ABK101M □□ 125020
	220	0.48	0.16	1120	16X25	ECR2ABK221M □□ 160025
	330	0.32	0.13	1290	16X25	ECR2ABK331M □□ 160025
	470	0.23	0.11	1350	16X31.5	ECR2ABK471M □□ 160031

Lifetime Diagram



Ratings for CD263 BK Series

U _r (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(mAmps)	(mm)	-
160 (200) 2C	0.47	423.5	12	6.3X11.5	ECR2CBKR47M □□ 063011
	1	199	18	6.3X11.5	ECR2CBK010M □□ 063011
	2.2	90.5	26	6.3X11.5	ECR2CBK2R2M □□ 063011
	3.3	60.3	37	8X11.5	ECR2CBK3R3M □□ 080011
	4.7	42.3	44	8X11.5	ECR2CBK4R7M □□ 080011
	10	19.9	75	10X12.5	ECR2CBK100M □□ 100012
	22	9	135	10X16	ECR2CBK220M □□ 100016
	33	6	175	10X20	ECR2CBK330M □□ 100020
	47	4.2	230	12.5X20	ECR2CBK470M □□ 125020
	100	2	330	16X25.5	ECR2CBK101M □□ 160025
200 (250) 2D	0.47	423.5	12	6.3X11.5	ECR2DBKR47M □□ 063011
	1	199	18	6.3X11.5	ECR2DBK010M □□ 063011
	2.2	90.5	26	6.3X11.5	ECR2DBK2R2M □□ 063011
	3.3	60.3	37	8X11.5	ECR2DBK3R3M □□ 080011
	4.7	42.3	50	10X12.5	ECR2DBK4R7M □□ 100012
	10	19.9	80	10X16	ECR2DBK100M □□ 100016
	22	9	135	10X20	ECR2DBK220M □□ 100020
	33	6	190	12.5X20	ECR2DBK330M □□ 125020
	47	4.2	230	12.5X25	ECR2DBK470M □□ 125025
	100	2	360	16X25.5	ECR2DBK101M □□ 160025
250 (300) 2E	0.47	423.5	12	6.3X11.5	ECR2EBKR47M □□ 063011
	1	199	18	6.3X11.5	ECR2EBK010M □□ 063011
	2.2	90.5	30	8X11.5	ECR2EBK2R2M □□ 080011
	3.3	60.3	43	8X11.5	ECR2EBK3R3M □□ 080011
	4.7	42.3	50	10X12.5	ECR2EBK4R7M □□ 100012
	10	19.9	90	10X16	ECR2EBK100M □□ 100016
	22	9	155	12.5X20	ECR2EBK220M □□ 125020
	33	6	190	12.5X25	ECR2EBK330M □□ 125025
	47	4.2	225	16X25.5	ECR2EBK470M □□ 160025
	100	2	340	16X31.5	ECR2EBK101M □□ 160031
315 (350) 2F	0.47	564.6	11	6.3X11.5	ECR2FBKR47M □□ 063011
	1	265.4	18	8X11.5	ECR2FBK010M □□ 080011
	2.2	120.6	30	10X12.5	ECR2FBK2R2M □□ 100012
	3.3	80.4	36	10X12.5	ECR2FBK3R3M □□ 100012
	4.7	56.5	47	10X16	ECR2FBK4R7M □□ 100016
	10	26.5	95	10X20	ECR2FBK100M □□ 100020
	22	12.1	130	12.5X20	ECR2FBK220M □□ 125020
	33	8	180	12.5X25	ECR2FBK330M □□ 125025
	47	5.6	330	16X25.5	ECR2FBK470M □□ 160025
	100	2.7	620	18X31.5	ECR2FBK101M □□ 180031
350 (400) 2V	0.47	564.6	11	6.3X11.5	ECR2VBKR47M □□ 063011
	1	265.4	18	8X11.5	ECR2VBK010M □□ 080011
	2.2	120.6	30	10X12.5	ECR2VBK2R2M □□ 100012
	3.3	80.4	36	10X12.5	ECR2VBK3R3M □□ 100012
	4.7	56.5	47	10X16	ECR2VBK4R7M □□ 100016
	10	26.5	95	10X20	ECR2VBK100M □□ 100020
	22	12.1	130	12.5X20	ECR2VBK220M □□ 125020
	33	8	180	12.5X25	ECR2VBK330M □□ 125025
	47	5.6	330	16X25.5	ECR2VBK470M □□ 160025
	100	2.7	620	18X31.5	ECR2VBK101M □□ 180031
400 (450) 2G	1	265.4	18	8X11.5	ECR2GBK1R1M □□ 080011
	2.2	120.6	30	10X12.5	ECR2GBK2R2M □□ 100012
	3.3	80.4	40	10X16	ECR2GBK3R3M □□ 100016
	4.7	56.5	52	10X20	ECR2GBK4R7M □□ 100020
	10	26.5	110	12.5X20	ECR2GBK100M □□ 125020
	22	12.1	150	12.5X25	ECR2GBK220M □□ 125025
	33	8	215	16X25.5	ECR2GBK330M □□ 160025
	47	5.6	360	16X25.5	ECR2GBK470M □□ 160025
	68	3.9	470	18X25.5	ECR2GBK680M □□ 180025
	82	3.2	575	18X31.5	ECR2GBK820M □□ 180031
450 (500) 2W	100	2.7	675	18X36	ECR2GBK101M □□ 180036
	120	2.2	735	18X40	ECR2GBK121M □□ 180040
	150	1.8	825	20X41	ECR2GBK151M □□ 200041
	1	265.4	18	8X11.5	ECR2WBK010M □□ 080011
	2.2	120.6	29	10X16	ECR2WBK2R2M □□ 100016
	3.3	80.4	42	10X20	ECR2WBK3R3M □□ 100020
	4.7	56.5	54	10X20	ECR2WBK4R7M □□ 100020
	10	26.5	122	10X20	ECR2WBK100M □□ 100020
	10	26.5	122	12.5X20	ECR2WBK100M □□ 125020
	22	12.1	170	12.5X25	ECR2WBK220M □□ 125025

U _r (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Rated Ripple Current 105°C, 120Hz	Size ΦD x L	P/N
(V)	(μF)	(Ω)	(mAmps)	(mm)	-
450 (500) 2W	33	8	240	16X25.5	ECR2WBK330M □□ 160025
	47	5.6	400	16X31.5	ECR2WBK470M □□ 160031
	68	3.9	570	18X31.5	ECR2WBK680M □□ 180031
	82	3.2	640	18X31.5	ECR2WBK820M □□ 180031
	100	2.7	750	18X36	ECR2WBK820M □□ 180036
	120	2.2	820	18X40	ECR2WBK121M □□ 180040
	150	1.8	920	18X46	ECR2WBK151M □□ 180046
	180	1.5	1100	20X41	ECR2WBK151M □□ 200041
	220	1.2	1200	22X45	ECR2WBK221M □□ 220045
	220	1.2	1200	22X45	ECR2WBK221M □□ 220045
500 (550) 2H	1	265.4	21	10X12.5	ECR2HBK010M □□ 100012
	2.2	120.6	35	10X16	ECR2HBK2R2M □□ 100016
	3.3	80.4	48	10X20	ECR2HBK3R3M □□ 100020
	4.7	56.5	63	12.5X20	ECR2HBK4R7M □□ 125020
	10	26.5	120	12.5X25	ECR2HBK100M □□ 125025
	22	12.1	200	16X25.5	ECR2HBK220M □□ 160025
	33	8	240	16X31.5	ECR2HBK330M □□ 160031
	47	5.6	405	18X31.5	ECR2HBK470M □□ 180031
	68	3.9	540	18X36	ECR2HBK680M □□ 180036
	82	3.2	610	18X40	ECR2HBK680M □□ 180040
550 (600) 2Y	100	2.7	800	20X41	ECR2HBK820M □□ 180036
	120	2.2	840	22X45	ECR2HBK820M □□ 180040
	150	1.8	890	22X45	ECR2HBK101M □□ 200041
	22	12.1	180	12.5X30	ECR2HBK121M □□ 220045
	33	8	230	16X25.5	ECR2HBK151M □□ 220045
	47	5.6	360	16X31.5	ECR2HBK220M □□ 160025
	68	3.9	480	18X31.5	ECR2HBK330M □□ 160031
	82	3.2	560	18X46	ECR2HBK470M □□ 180031
	100	2.7	650	18X50	ECR2HBK680M □□ 180040
	100	2.7	650	18X50	ECR2HBK101M □□ 180050

Customer products are available on request.