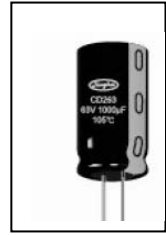
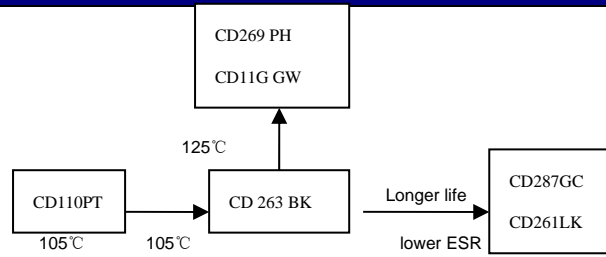




CD 263 BK Series

2000h at 105°C

Standard 105°C



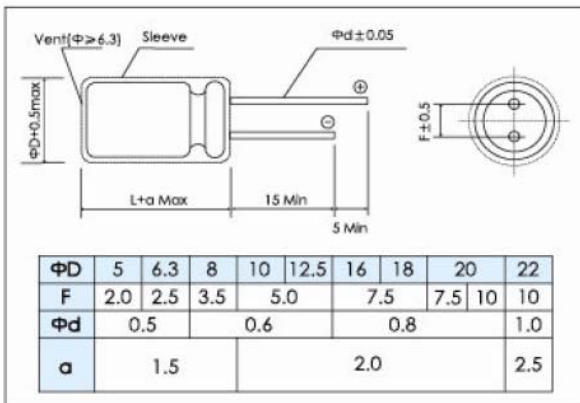
Items	Characteristics	
Operating Temperature Range(°C)	-40~+105	-25~+105
Voltage Range(V)	6.3~250	315~500
Capacitance Range(μF)	0.1~15000	
Capacitance Tolerance(20°C,120Hz)	±20%	
Leakage Current(μA)	6.3~100V	160~500V
	After 2 minutes at 20°C application of rated voltage,leakage current is not more than 0.01CV or 3,whichever is greater.	After 1 minute at 20°C application of rated voltage,leakage current is not more than : CV≤1000:0.1 CV +40 CV>1000:0.04 CV +100
C: Nominal Capacitance (μF) V: Rated Voltage(V)		
Dissipation Factor (20°C, 120Hz)	Rated Voltage(V)	6.3 10 16 25 35 50 63 100 160 200 250 315 350 400 420 450 500
	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
	Z _{-25°C} /Z _{+20°C}	4 3 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 6
	Z _{-40°C} /Z _{+20°C}	8 6 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

	Useful Life		Load Life	Endurance Test	Shelf Life
Lifetime	$\phi \leq 8$:2000h $\phi \geq 10$:3000h	>100000h	$\phi \leq 8$:1000h $\phi \geq 10$: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 ±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 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×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 30min>24h before measurement

Dimensions

mm

Frequency Coefficient



Rated Voltage(V)	Frequency	50/60Hz	120Hz	1kHz	10kHz	50kHz	100kHz
	Cap(μF)						
6.3~100	0.1~4.7	0.32	0.4	0.7	0.8	0.92	1.0
	10~47	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
160~500	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 (°C)	+70	+85	+105
Rated Voltage (V)			
6.3~100	2.0	1.7	1.0
160~500	1.8	1.4	1.0

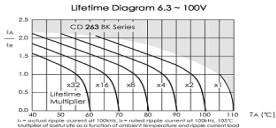
Ratings for CD263 BK Series

U _s (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size Φ D x L	P/N	
(V)	(μF)	(Ω)	(Ω)	(mA Arms)	(mm)	-	
6.3 (7.2) 0J	33	8.8	2.5	105	5*11.5	ECR0JBK330M□□050011	
	47	6.2	1.5	120	5*11.5	ECR0JBK470M□□050011	
	100	2.9	1.2	130	5*11.5	ECR0JBK101M□□050011	
	220	1.3	0.87	180	6.3*11.5	ECR0JBK221M□□063011	
	330	0.9	0.58	220	6.3*11.5	ECR0JBK331M□□063011	
	470	0.6	0.39	315	8*11.5	ECR0JBK471M□□080011	
	1000	0.29	0.23	500	10*12.5	ECR0JBK102M□□100012	
	2200	0.14	0.095	765	10*20	ECR0JBK222M□□100020	
	3300	0.105	0.09	1050	12.5*20	ECR0JBK332M□□125020	
	4700	0.079	0.061	1670	16*25	ECR0JBK472M□□160025	
	6800	0.062	0.056	1740	16*25	ECR0JBK682M□□160025	
	10000	0.053	0.045	2110	16*31.5	ECR0JBK103M□□160031	
	15000	0.044	0.036	25800	18*35.5	ECR0JBK153M□□180035	
	10 (13) 1A	22	11.5	2.5	92	5*11.5	ECR1ABK220M□□050011
		33	7.6	1.9	105	5*11.5	ECR1ABK330M□□050011
47		5.4	1.5	120	5*11.5	ECR1ABK470M□□050011	
100		2.5	1.2	130	5*11.5	ECR1ABK101M□□050011	
220		1.1	0.58	220	6.3*11.5	ECR1ABK221M□□063011	
330		0.76	0.47	265	8*11.5	ECR1ABK331M□□080011	
470		0.54	0.39	315	8*11.5	ECR1ABK471M□□080011	
1000		0.25	0.18	615	10*16	ECR1ABK102M□□100016	
2200		0.13	0.09	1050	12.5*20	ECR1ABK222M□□125020	
3300		0.09	0.068	1300	12.5*25	ECR1ABK332M□□125025	
4700		0.07	0.056	1740	16*25	ECR1ABK472M□□160025	
6800		0.06	0.045	2110	16*31.5	ECR1ABK682M□□160031	
10000		0.05	0.036	2580	18*35.5	ECR1ABK103M□□180035	
16 (20) 1C		10	21.2	2.5	92	5*11.5	ECR1CBK100M□□050011
		22	9.7	1.9	105	5*11.5	ECR1CBK220M□□050011
	33	6.4	1.5	120	5*11.5	ECR1CBK330M□□050011	
	47	4.5	1.2	130	5*11.5	ECR1CBK470M□□050011	
	100	2.1	0.58	220	6.3*11.5	ECR1CBK101M□□063011	
	220	0.97	0.47	290	8*11.5	ECR1CBK221M□□080011	
	330	0.64	0.39	315	8*11.5	ECR1CBK331M□□080011	
	470	0.45	0.23	500	10*12.5	ECR1CBK471M□□100012	
	1000	0.21	0.12	825	10*20	ECR1CBK102M□□100020	
	2200	0.11	0.068	1300	12.5*25	ECR1CBK222M□□125025	
	3300	0.08	0.056	1740	16*25	ECR1CBK332M□□160025	
	4700	0.06	0.045	2110	16*31.5	ECR1CBK472M□□160031	
	6800	0.05	0.036	2580	18*35.5	ECR1CBK682M□□180035	
	25 (32) 1E	4.7	39.5	3	85	5*11.5	ECR1EBK47M□□050011
		10	18.6	2.5	92	5*11.5	ECR1EBK100M□□050011
22		8.4	1.9	105	5*11.5	ECR1EBK220M□□050011	
33		5.6	1.5	120	5*11.5	ECR1EBK330M□□050011	
47		4.0	1.2	130	5*11.5	ECR1EBK470M□□050011	
100		1.9	0.58	220	6.3*11.5	ECR1EBK101M□□063011	
220		0.84	0.39	315	8*11.5	ECR1EBK221M□□080011	
330		0.56	0.23	500	10*12.5	ECR1EBK331M□□100025	
470		0.40	0.18	615	10*16	ECR1EBK471M□□100016	
1000		0.19	0.09	1050	12.5*20	ECR1EBK102M□□125020	
2200		0.10	0.056	1740	16*25	ECR1EBK222M□□160025	
3300		0.07	0.045	2110	16*31.5	ECR1EBK332M□□160031	
4700		0.06	0.036	2580	18*35.5	ECR1EBK472M□□180035	

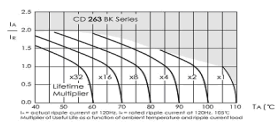
U _s (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Max Imp 20°C, 100kHz	Rated Ripple Current 105°C, 100kHz	Size Φ D x L	P/N	
(V)	(μF)	(Ω)	(Ω)	(mA Arms)	(mm)	-	
35 (44) 1V	4.7	33.9	2.5	92	5*11.5	ECR1VBK47M□□050011	
	10	15.9	1.8	105	5*11.5	ECR1VBK100M□□050011	
	22	7.2	1.5	120	5*11.5	ECR1VBK220M□□050011	
	33	4.8	1.5	130	5*11.5	ECR1VBK330M□□050011	
	47	3.4	0.58	220	6.3*11.5	ECR1VBK470M□□063011	
	100	1.6	0.39	315	8*11.5	ECR1VBK101M□□080011	
	220	0.72	0.23	500	10*12.5	ECR1VBK221M□□100012	
	330	0.48	0.18	615	10*16	ECR1VBK331M□□100016	
	470	0.34	0.12	825	10*20	ECR1VBK471M□□100020	
	1000	0.16	0.068	1300	12.5*25	ECR1VBK102M□□125025	
	2200	0.08	0.045	2110	16*31.5	ECR1VBK222M□□160031	
	3300	0.06	0.036	2580	18*35.5	ECR1VBK332M□□180035	
	50 (63) 1H	0.1	1327	18	10	5*11.5	ECR1HBK0R1M□□050011
		0.22	603	13	15	5*11.5	ECR1HBK22M□□050011
		0.33	402	10	18	5*11.5	ECR1HBK33M□□050011
0.47		282	7	23	5*11.5	ECR1HBK47M□□050011	
1		133	4.9	35	5*11.5	ECR1HBK010M□□050011	
2.2		60	4.2	53	5*11.5	ECR1HBK2R2M□□050011	
3.3		40	3.9	65	5*11.5	ECR1HBK3R3M□□050011	
4.7		28	3.6	82	5*11.5	ECR1HBK4R7M□□050011	
10		13	2.7	100	5*11.5	ECR1HBK100M□□050011	
22		6	1.9	125	5*11.5	ECR1HBK220M□□050011	
33		4	1.1	195	6.3*11.5	ECR1HBK330M□□063011	
47		2.8	0.9	245	6.3*11.5	ECR1HBK470M□□063011	
100		1.3	0.5	385	8*11.5	ECR1HBK101M□□080011	
220		0.60	0.27	505	10*16	ECR1HBK221M□□100016	
63 (79) 1J		330	0.40	0.18	675	10*20	ECR1HBK331M□□100020
	470	0.28	0.12	895	12.5*20	ECR1HBK471M□□125020	
	1000	0.13	0.076	1495	16*25	ECR1HBK102M□□160025	
	2200	0.07	0.05	2190	18*35.5	ECR1HBK222M□□180035	
	4.7	25	5.8	74	5*11.5	ECR1JBK47M□□050011	
	10	12	3.6	95	5*11.5	ECR1JBK100M□□050011	
	22	5	2.1	130	6.3*11.5	ECR1JBK220M□□063011	
	33	4	1.7	160	6.3*11.5	ECR1JBK330M□□063011	
	47	2.5	1.2	305	8*11.5	ECR1JBK470M□□080011	
	100	1.2	0.65	395	10*12.5	ECR1JBK101M□□100012	
	220	0.54	0.32	505	10*20	ECR1JBK221M□□100020	
	330	0.36	0.22	660	12.5*20	ECR1JBK331M□□125020	
	470	0.25	0.16	850	12.5*25	ECR1JBK471M□□125025	
	1000	0.12	0.098	1430	16*31.5	ECR1JBK102M□□160031	
	100 (125) 2A	0.47	226	13	30	5*11.5	ECR2ABK47M□□050011
1		106	11	45	5*11.5	ECR2ABK010M□□050011	
2.2		48	9.2	60	5*11.5	ECR2ABK2R2M□□050011	
3.3		32	7.2	67	5*11.5	ECR2ABK3R3M□□050011	
4.7		23	6.3	75	5*11.5	ECR2ABK4R7M□□050011	
10		11	3.3	110	6.3*11.5	ECR2ABK100M□□063011	
22		5	1.4	165	8*11.5	ECR2ABK220M□□080011	
33		3.2	0.94	305	10*12.5	ECR2ABK330M□□100012	
47		2.3	0.68	320	10*16	ECR2ABK470M□□100016	
100		1.1	0.28	585	12.5*20	ECR2ABK101M□□125020	
220		0.48	0.16	1120	16*25	ECR2ABK221M□□160025	
330		0.32	0.13	1290	16*25	ECR2ABK331M□□160025	
470		0.23	0.11	1350	16*31.5	ECR2ABK471M□□160031	



Lifetime Diagram



Lifetime Diagram 160 - 500V



Ratings for CD263 BK Series

U _s (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)	(mArms)	(mm)	-
160 (200) 2C	0.47	423.5	12	6.3*11.5	ECR2CBK47M□□063011
	1	199.0	18	6.3*11.5	ECR2CBK010M□□063011
	2.2	90.5	26	6.3*11.5	ECR2CBK2R2M□□063011
	3.3	60.3	37	8*11.5	ECR2CBK3R3M□□080011
	4.7	42.3	44	8*11.5	ECR2CBK4R7M□□080011
	10	19.9	75	10*12.5	ECR2CBK100M□□100012
	22	9.0	135	10*16	ECR2CBK220M□□100016
	33	6.0	175	10*20	ECR2CBK330M□□100020
	47	4.2	230	12.5*20	ECR2CBK470M□□125020
	100	2.0	330	16*25.5	ECR2CBK101M□□160025
200 (250) 2D	0.47	423.5	12	6.3*11.5	ECR2DBK47M□□063011
	1	199.0	18	6.3*11.5	ECR2DBK010M□□063011
	2.2	90.5	26	6.3*11.5	ECR2DBK2R2M□□063011
	3.3	60.3	37	8*11.5	ECR2DBK3R3M□□080011
	4.7	42.3	50	10*12.5	ECR2DBK4R7M□□100012
	10	19.9	80	10*16	ECR2DBK100M□□100016
	22	9.0	135	10*20	ECR2DBK220M□□100020
	33	6.0	190	12.5*20	ECR2DBK330M□□125020
	100	2.0	360	16*25.5	ECR2DBK101M□□160025
	220	0.9	525	18*31.5	ECR2DBK221M□□180031
250 (300) 2E	0.47	423.5	12	6.3*11.5	ECR2EBK47M□□063011
	1	199.0	18	6.3*11.5	ECR2EBK010M□□063011
	2.2	90.5	30	8*11.5	ECR2EBK2R2M□□080011
	3.3	60.3	43	8*11.5	ECR2EBK3R3M□□080011
	4.7	42.3	50	10*12.5	ECR2EBK4R7M□□100012
	10	19.9	90	10*16	ECR2EBK100M□□100016
	22	9.0	155	12.5*20	ECR2EBK220M□□125020
	33	6.0	190	12.5*25	ECR2EBK330M□□125025
	47	4.2	225	16*25.5	ECR2EBK470M□□160025
	100	2.0	340	16*31.5	ECR2EBK101M□□160031
315 (350) 2F	0.47	564.6	11	6.3*11.5	ECR2FBK47M□□063011
	1	265.4	18	8*11.5	ECR2FBK010M□□080011
	2.2	120.6	30	10*12.5	ECR2FBK2R2M□□100012
	3.3	80.4	36	10*12.5	ECR2FBK3R3M□□100012
	4.7	56.5	47	10*16	ECR2FBK4R7M□□100016
	10	26.5	95	10*20	ECR2FBK100M□□100020
	22	12.1	130	12.5*20	ECR2FBK220M□□125020
	33	8.0	180	12.5*25	ECR2FBK330M□□125025
	47	5.6	330	16*25.5	ECR2FBK470M□□160025
	100	2.7	620	18*31.5	ECR2FBK101M□□180031
350 (400) 2V	0.47	564.6	11	6.3*11.5	ECR2VBK47M□□063011
	1	265.4	18	8*11.5	ECR2VBK010M□□080011
	2.2	120.6	30	10*12.5	ECR2VBK2R2M□□100012
	3.3	80.4	36	10*12.5	ECR2VBK3R3M□□100012
	4.7	56.5	47	10*16	ECR2VBK4R7M□□100016
	10	26.5	95	10*20	ECR2VBK100M□□100020
	22	12.1	130	12.5*20	ECR2VBK220M□□125020
	33	8.0	180	12.5*25	ECR2VBK330M□□125025
	47	5.6	330	16*25.5	ECR2VBK470M□□160025
	100	2.7	620	18*31.5	ECR2VBK101M□□180031
400 (450) 2G	1	265.4	18	8*11.5	ECR2GBK010M□□080011
	2.2	120.6	25	8*11.5	ECR2GBK2R2M□□080011
	3.3	80.4	30	10*12.5	ECR2GBK2R2M□□100012
	4.7	56.5	35	10*12.5	ECR2GBK3R3M□□100012

U _s (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)	(mArms)	(mm)	-
420 (470) 2X	1	265.4	16	8*11.5	ECR2XBK010M□□080011
		265.4	19	10*12.5	ECR2XBK010M□□100012
	2.2	120.6	24	8*11.5	ECR2XBK2R2M□□080011
		120.6	29	10*12.5	ECR2XBK2R2M□□100012
	3.3	80.4	34	10*12.5	ECR2XBK3R3M□□100012
		80.4	38	10*16	ECR2XBK3R3M□□100016
	4.7	56.5	46	10*16	ECR2XBK4R7M□□100016
		56.5	52	10*20	ECR2XBK4R7M□□100020
	10	26.5	110	10*20	ECR2XBK100M□□100020
		26.5	116	12.5*20	ECR2XBK100M□□125020
	22	12.1	162	12.5*25	ECR2XBK220M□□125025
		8.0	204	16*20	ECR2XBK330M□□160020
	33	8.0	228	16*25.5	ECR2XBK330M□□160025
		5.6	380	16*31.5	ECR2XBK470M□□160031
	56	4.7	420	16*31.5	ECR2XBK560M□□160031
		4.7	420	18*25.5	ECR2XBK560M□□180025
	68	3.9	542	18*31.5	ECR2XBK680M□□180031
		3.9	542	16*36	ECR2XBK680M□□160036
	82	3.2	608	18*31.5	ECR2XBK820M□□180031
		3.2	608	16*40	ECR2XBK820M□□160040
	100	2.7	713	18*36	ECR2XBK101M□□180036
		2.7	7136	16*45	ECR2XBK101M□□160045
120	2.2	779	18*40	ECR2XBK121M□□180040	
	2.2	779	16*50	ECR2XBK121M□□160050	
150	1.8	874	20*41	ECR2XBK151M□□200041	
	1.8	874	16*60	ECR2XBK151M□□160060	
450 (500) 2W	1	265.4	16	8*11.5	ECR2WBK010M□□080011
		265.4	19	10*12.5	ECR2WBK010M□□100012
	2.2	120.6	26	10*12.5	ECR2WBK2R2M□□100012
		120.6	29	10*16	ECR2WBK2R2M□□100016
	3.3	80.4	38	10*16	ECR2WBK3R3M□□100016
		80.4	42	10*20	ECR2WBK3R3M□□100020
	4.7	56.5	49	10*16	ECR2WBK4R7M□□100016
		56.5	54	10*20	ECR2WBK4R7M□□100020
	10	26.5	122	10*20	ECR2WBK100M□□100020
		26.5	122	12.5*20	ECR2WBK100M□□125020
	22	12.1	170	12.5*25	ECR2WBK220M□□125025
		8.0	240	16*25.5	ECR2WBK330M□□160025
	47	5.6	400	16*31.5	ECR2WBK470M□□160031
		4.7	440	18*25.5	ECR2WBK560M□□180025
	56	4.7	440	16*31.5	ECR2WBK560M□□160031
		3.9	570	18*31.5	ECR2WBK680M□□180031
	68	3.9	570	16*36	ECR2WBK680M□□160036
		3.2	640	18*31.5	ECR2WBK820M□□180031
	82	3.2	640	18*36	ECR2WBK820M□□180036
		2.7	750	18*36	ECR2WBK101M□□180036
	100	2.7	750	16*45	ECR2WBK101M□□160045
		2.2	820	18*40	ECR2WBK121M□□180040
120	2.2	820	16*50	ECR2WBK121M□□160050	
	1.8	920	18*46	ECR2WBK151M□□180046	
150	1.8	920	20*41	ECR2WBK151M□□200041	
	1.8	920	16*60	ECR2WBK151M□□160060	
180	1.5	1100	22*41	ECR2WBK181M□□220041	
500 (550) 2H	1	265.4	21	10*12.5	ECR2HBK010M□□100012
	2.2	120.6	35	10*16	ECR2HBK2R2M□□100016
	3.3	80.4	48	10*20	ECR2HBK3R3M□□100020

CD 263 BK Series



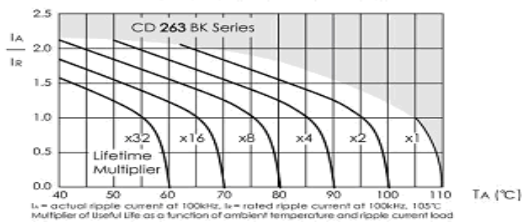
4.7	80.4	40	10*16	ECR2GBK3R3M□□100016
	56.5	47	10*12.5	ECR2GBK4R7M□□100012
10	56.5	52	10*16	ECR2GBK4R7M□□100016
	26.5	80	10*16	ECR2GBK100M□□100016
	26.5	95	10*20	ECR2GBK100M□□100020
22	26.5	120	12.5*20	ECR2GBK100M□□125020
	12.1	150	12.5*25	ECR2GBK220M□□125025
33	8.0	180	12.5*25	ECR2GBK330M□□125025
	8.0	180	16*20	ECR2GBK330M□□160020
	8.0	215	16*25.5	ECR2GBK330M□□160025
47	5.6	360	16*25.5	ECR2GBK470M□□160025
68	3.9	470	18*25.5	ECR2GBK680M□□180025
82	3.2	575	18*31.5	ECR2GBK820M□□180031
100	2.7	675	18*36	ECR2GBK101M□□180036
120	2.2	735	18*40	ECR2GBK121M□□180040
150	1.8	825	20*41	ECR2GBK151M□□20004

4.7	56.5	63	12.5*20	ECR2HBK4R7M□□125020
10	26.5	120	12.5*25	ECR2HBK100M□□125025
22	12.1	180	16*25.5	ECR2HBK220M□□160025
33	8.0	240	16*31.5	ECR2HBK330M□□160031
47	5.6	405	18*31.5	ECR2HBK470M□□180031
56	4.7	450	16*40	ECR2HBK560M□□160040
	4.7	450	18*31.5	ECR2HBK560M□□180031
68	3.9	560	18*36	ECR2HBK680M□□180036
	3.9	560	18*40	ECR2HBK680M□□180040
	3.9	560	16*45	ECR2HBK680M□□160045
82	3.2	640	18*40	ECR2HBK820M□□180040
	3.2	640	16*55	ECR2HBK820M□□160055
100	2.7	800	20*41	ECR2HBK101M□□200041
	2.7	800	18*46	ECR2HBK101M□□180046
	2.7	800	16*60	ECR2HBK101M□□160060
120	2.2	840	22*45	ECR2HBK121M□□220045
150	1.8	890	22*45	ECR2HBK151M□□220045

Customer products are available on request

Lifetime Diagram

Lifetime Diagram 6.3 ~ 100V



Lifetime Diagram 160 ~ 500V

