

# LXA Series

- Rated voltage range up to 525V<sub>dc</sub>
- Endurance with ripple current : 105°C 5000 hours (2000 hours for 500V<sub>dc</sub> & 525V<sub>dc</sub>)
- High reliability products



### ◆ SPECIFICATIONS

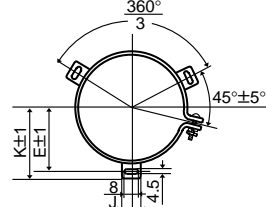
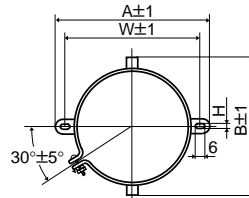
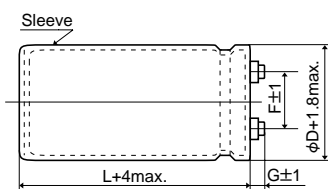
Items	Characteristics	
Category	-40 to +105°C (10 to 100V <sub>dc</sub> ) -25 to +105°C (160 to 525V <sub>dc</sub> )	
Temperature Range		
Rated Voltage Range	10 to 525V <sub>dc</sub>	
Capacitance Tolerance	-10 to +50% (T) (10 to 250V <sub>dc</sub> ) ±20% (M) (350 to 525V <sub>dc</sub> ) (at 20°C, 120Hz)	
Leakage Current	I=0.02CV or 5mA, whichever is smaller. Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 5 minutes)	
Dissipation Factor (tanδ)	See STANDARD RATINGS (10 to 250V <sub>dc</sub> ) 0.20max (350 to 525V <sub>dc</sub> ) (at 20°C, 120Hz)	
Low Temperature Characteristics	Capacitance change C(-40°C)/C(+20°C)≥0.6(10 to 100V <sub>dc</sub> ) C(-25°C)/C(+20°C)≥0.7(160 to 250V <sub>dc</sub> ) C(-25°C)/C(+20°C)≥0.65(350 to 525V <sub>dc</sub> ) (at 120Hz)	
Insulation Resistance	When measured between the terminals shorted each other and the mounting clamp on the insulating sleeve covering the case by using an insulation resistance meter of 500V <sub>dc</sub> , the insulation resistance shall not be less than 100MΩ.	
Insulation Withstanding Voltage	When a voltage of 2000Vac is applied for 1 minute between the terminals shorted each other and the mounting clamp on the insulating sleeve covering the case, there shall not be electrical damage.	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage with the rated ripple current is applied for 5000 hours (2000 hours for 500 & 525V <sub>dc</sub> products) at 105°C.	
	Capacitance change	≤±20% of the initial value
	D.F. (tanδ)	≤200% of the initial specified value
	Leakage current	≤The initial specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.	
	Rated voltage	10 to 250V <sub>dc</sub> 350 to 525V <sub>dc</sub>
	Capacitance change	≤±15% of the initial value      ≤±20% of the initial value
	D.F. (tanδ)	≤150% of the initial specified value      ≤200% of the initial specified value
	Leakage current	≤The initial specified value      ≤The initial specified value

### ◆ DIMENSIONS (Screw-Mount) [mm]

● Terminal Code : LG

● Mounting Clamp Code : B

● Mounting Clamp Code : C



φD	G	
	10 to 250V <sub>dc</sub>	350 to 525V <sub>dc</sub>
~φ63.5	6	6
φ76	5	6
φ89	5	4

φD	A	B	W	H	F
35	58	44	48	3.5	12.7
50	78	64	68	4.5	22.4
63.5	90	76	80	4.5	28.0
76	104.5	90	93.5	4.5	31.5

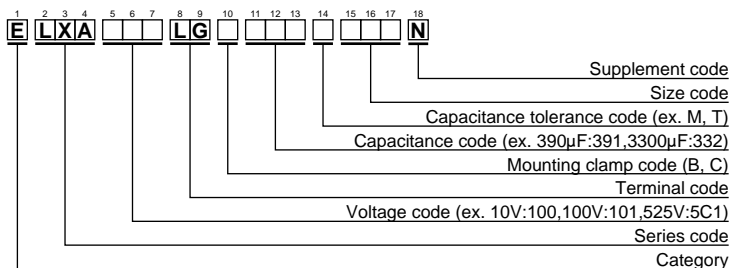
φD	E	K	J	F
50	32.5	37.0	14.0	22.4
63.5	38.1	43.5	14.0	28.0
76	44.5	50.0	14.0	31.5
89	50.8	56.5	16.0	31.5

<Screw specifications>

Plus hexagon-headed screw:  
M5×0.8×10  
Maximum screw tightening torque:  
3.23Nm

\* The screw and the mounting clamp are separately supplied and not attached to the product.

### ◆ PART NUMBERING SYSTEM



Please refer to "A guide to global code (screw-mount terminal type)"



◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.	
10	27000	35×80	0.45	4.3	ELXA100LGB273TA80N	50	10000	35×80	0.25	3.7	ELXA500LGB103TA80N	
	33000	35×80	0.45	4.7	ELXA100LGB333TA80N		12000	35×100	0.25	4.4	ELXA500LGB123TAA0N	
	39000	35×80	0.45	5.3	ELXA100LGB393TA80N		15000	35×120	0.30	4.7	ELXA500LGB153TAC0N	
	47000	35×100	0.45	6.1	ELXA100LGB473TAA0N		18000	50×80	0.35	4.8	ELXA500LGC183TC80N	
	56000	35×100	0.50	6.2	ELXA100LGB563TAA0N		22000	50×100	0.35	5.9	ELXA500LGC223TCA0N	
	68000	35×120	0.60	6.8	ELXA100LGB683TAC0N		27000	50×120	0.35	7.0	ELXA500LGC273TCC0N	
	82000	50×80	0.60	7.8	ELXA100LGC823TC80N		33000	63.5×100	0.40	7.6	ELXA500LGC333TDA0N	
	100000	50×100	0.70	8.5	ELXA100LGC104TCA0N		39000	63.5×120	0.40	8.9	ELXA500LGC393TDC0N	
	120000	50×100	0.70	9.5	ELXA100LGC124TCA0N		47000	63.5×120	0.40	9.8	ELXA500LGC473TDC0N	
	150000	63.5×100	0.80	11.0	ELXA100LGC154TDA0N		56000	76×120	0.40	11.9	ELXA500LGC563TEC0N	
	180000	63.5×100	0.80	12.1	ELXA100LGC184TDA0N		68000	76×140	0.45	13.1	ELXA500LGC683TEE0N	
	220000	76×100	1.00	13.2	ELXA100LGC224TEA0N		82000	89×140	0.50	14.8	ELXA500LGC823TFE0N	
	270000	76×120	1.20	14.4	ELXA100LGC274TEC0N		63	2700	35×50	0.15	1.9	ELXA630LGB272TA50N
	330000	76×140	1.20	17.0	ELXA100LGC334TEE0N			3300	35×50	0.15	2.1	ELXA630LGB273TA50N
	390000	89×140	1.40	18.6	ELXA100LGC394TFE0N			3900	35×80	0.20	2.7	ELXA630LGB392TA80N
16	15000	35×50	0.45	2.9	ELXA160LGB153TA50N	4700		35×80	0.20	2.9	ELXA630LGB472TA80N	
	18000	35×80	0.45	3.5	ELXA160LGB183TA80N	5600		35×80	0.20	3.2	ELXA630LGB562TA80N	
	22000	35×80	0.45	3.9	ELXA160LGB223TA80N	6800		35×80	0.20	3.5	ELXA630LGB682TA80N	
	27000	35×80	0.45	4.3	ELXA160LGB273TA80N	8200		35×100	0.20	4.2	ELXA630LGB822TAA0N	
	33000	35×100	0.50	4.8	ELXA160LGB333TAA0N	10000		35×120	0.25	4.3	ELXA630LGB103TAC0N	
	39000	35×100	0.50	5.3	ELXA160LGB393TAA0N	12000		50×80	0.25	4.8	ELXA630LGC123TC80N	
	47000	35×120	0.50	6.2	ELXA160LGB473TAC0N	15000		50×100	0.25	5.9	ELXA630LGC153TCA0N	
	56000	50×80	0.60	6.3	ELXA160LGC563TC80N	18000		50×120	0.25	6.3	ELXA630LGC183TCC0N	
	68000	50×100	0.60	7.6	ELXA160LGC683TCA0N	22000		50×120	0.30	6.7	ELXA630LGC223TCC0N	
	82000	50×120	0.70	8.3	ELXA160LGC823TCC0N	27000		63.5×120	0.30	8.8	ELXA630LGC273TDC0N	
	100000	50×120	0.70	9.2	ELXA160LGC104TCC0N	33000		76×100	0.30	10.0	ELXA630LGC333TEA0N	
	120000	63.5×100	0.80	9.9	ELXA160LGC124TDA0N	39000		76×120	0.35	10.7	ELXA630LGC393TEC0N	
	150000	76×100	0.80	12.3	ELXA160LGC154TEA0N	47000	76×140	0.35	12.5	ELXA630LGC473TTEE0N		
	180000	76×120	0.80	14.5	ELXA160LGC184TEC0N	56000	89×140	0.40	13.8	ELXA630LGC563TFE0N		
	220000	76×140	1.00	15.2	ELXA160LGC224TEE0N	80	2200	35×50	0.15	1.9	ELXA800LGB222TA50N	
270000	89×140	1.20	16.8	ELXA160LGC274TFE0N	2700		35×80	0.15	2.2	ELXA800LGB272TA80N		
25	12000	35×80	0.35	3.3	ELXA250LGB123TA80N		3300	35×80	0.15	2.5	ELXA800LGB332TA80N	
	15000	35×80	0.35	3.7	ELXA250LGB153TA80N		3900	35×80	0.15	2.9	ELXA800LGB392TA80N	
	18000	35×80	0.35	4.0	ELXA250LGB183TA80N		4700	35×100	0.15	3.1	ELXA800LGB472TAA0N	
	22000	35×80	0.35	4.5	ELXA250LGB223TA80N		5600	35×100	0.15	3.5	ELXA800LGB562TAA0N	
	27000	35×100	0.40	5.0	ELXA250LGB273TAA0N		6800	35×120	0.20	4.1	ELXA800LGB682TAC0N	
	33000	35×120	0.40	5.9	ELXA250LGB333TAC0N		8200	50×80	0.20	4.8	ELXA800LGC822TC80N	
	39000	50×80	0.40	6.5	ELXA250LGC393TC80N		10000	50×100	0.20	5.6	ELXA800LGC103TCA0N	
	47000	50×100	0.40	7.9	ELXA250LGC473TCA0N		12000	50×100	0.20	6.1	ELXA800LGC123TCA0N	
	56000	50×120	0.40	8.8	ELXA250LGC563TCC0N		15000	50×120	0.20	7.4	ELXA800LGC153TCC0N	
	68000	50×120	0.50	9.1	ELXA250LGC683TCC0N		18000	63.5×120	0.25	8.0	ELXA800LGC183TDC0N	
	82000	63.5×100	0.50	10.6	ELXA250LGC823TDA0N		22000	76×100	0.25	9.1	ELXA800LGC223TEA0N	
	100000	63.5×120	0.60	11.4	ELXA250LGC104TDC0N		27000	76×120	0.30	9.7	ELXA800LGC273TEC0N	
	120000	76×100	0.60	12.8	ELXA250LGC124TEA0N		33000	76×140	0.30	11.5	ELXA800LGC333TTEE0N	
	150000	76×120	0.75	13.7	ELXA250LGC154TEC0N	39000	89×140	0.35	12.5	ELXA800LGC393TFE0N		
	180000	76×140	0.75	16.1	ELXA250LGC184TEE0N	100	1200	35×50	0.15	1.4	ELXA101LGB122TA50N	
220000	89×140	1.00	16.6	ELXA250LGC224TFE0N	1500		35×80	0.15	1.6	ELXA101LGB152TA80N		
35	8200	35×80	0.30	3.0	ELXA350LGB822TA80N		1800	35×80	0.15	1.8	ELXA101LGB182TA80N	
	10000	35×80	0.30	3.3	ELXA350LGB103TA80N		2200	35×80	0.15	2.0	ELXA101LGB222TA80N	
	12000	35×80	0.30	3.6	ELXA350LGB123TA80N		2700	35×80	0.15	2.4	ELXA101LGB272TA80N	
	15000	35×80	0.30	4.1	ELXA350LGB153TA80N		3300	35×100	0.15	2.8	ELXA101LGB332TAA0N	
	18000	35×100	0.30	4.8	ELXA350LGB183TAA0N		3900	35×120	0.15	3.1	ELXA101LGB392TAC0N	
	22000	35×120	0.35	5.2	ELXA350LGB223TAC0N		4700	50×80	0.15	3.6	ELXA101LGC472TC80N	
	27000	50×80	0.40	5.9	ELXA350LGC273TC80N		5600	50×100	0.15	4.3	ELXA101LGC562TCA0N	
	33000	50×100	0.40	6.6	ELXA350LGC333TCA0N		6800	50×120	0.15	5.0	ELXA101LGC682TCC0N	
	39000	50×120	0.40	7.8	ELXA350LGC393TCC0N		8200	50×120	0.15	5.5	ELXA101LGC822TCC0N	
	47000	50×120	0.45	8.0	ELXA350LGC473TCC0N		10000	63.5×100	0.15	6.4	ELXA101LGC103TDA0N	
	56000	63.5×100	0.45	9.2	ELXA350LGC563TDA0N		12000	63.5×120	0.20	6.6	ELXA101LGC123TDC0N	
	68000	63.5×120	0.45	11.0	ELXA350LGC683TDC0N		15000	76×100	0.20	7.5	ELXA101LGC153TEA0N	
	82000	76×120	0.50	12.7	ELXA350LGC823TEC0N		18000	76×120	0.25	8.0	ELXA101LGC183TEC0N	
	100000	76×140	0.60	13.5	ELXA350LGC104TEE0N	22000	76×140	0.25	9.4	ELXA101LGC223TTEE0N		
	120000	89×140	0.60	16.1	ELXA350LGC124TFE0N	27000	89×140	0.30	10.4	ELXA101LGC273TFE0N		
50	3900	35×50	0.20	2.0	ELXA500LGB392TA50N	160	680	35×50	0.15	1.1	ELXA161LGB681TA50N	
	4700	35×50	0.25	2.2	ELXA500LGB472TA50N		820	35×80	0.15	1.2	ELXA161LGB821TA80N	
	5600	35×80	0.25	2.8	ELXA500LGB562TA80N		1000	35×80	0.15	1.3	ELXA161LGB102TA80N	
	6800	35×80	0.25	3.0	ELXA500LGB682TA80N		1200	35×80	0.15	1.5	ELXA161LGB122TA80N	
	8200	35×80	0.25	3.3	ELXA500LGB822TA80N		1500	35×80	0.15	1.7	ELXA161LGB152TA80N	



◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)	Part No.
160	1800	35×100	0.15	2.0	ELXA161LGB182TAA0N	400	680	50×60	0.20	3.0	ELXA401LGC681MC60N
	2200	35×120	0.15	2.3	ELXA161LGB222TAC0N		1200	50×85	0.20	4.7	ELXA401LGC122MC85N
	2700	35×120	0.15	2.7	ELXA161LGB272TAC0N		1800	50×105	0.20	6.3	ELXA401LGC182MCA5N
	3300	50×100	0.15	3.3	ELXA161LGC332TCA0N		2200	50×125	0.20	7.5	ELXA401LGC222MCC5N
	3900	50×120	0.15	3.8	ELXA161LGC392TCC0N		2200	63.5×85	0.20	7.3	ELXA401LGC222MD85N
	4700	50×120	0.15	4.2	ELXA161LGC472TCC0N		2700	50×145	0.20	8.9	ELXA401LGC272MCE5N
	5600	50×120	0.15	4.7	ELXA161LGC562TCC0N		2700	63.5×105	0.20	8.8	ELXA401LGC272MDA5N
	6800	63.5×120	0.15	5.7	ELXA161LGC682TDC0N		3300	63.5×125	0.20	10.5	ELXA401LGC332MDC5N
	8200	76×100	0.20	6.4	ELXA161LGC822TEA0N		3300	76×85	0.20	9.9	ELXA401LGC332ME85N
	10000	76×120	0.20	6.6	ELXA161LGC103TEC0N		4700	63.5×145	0.20	13.4	ELXA401LGC472MDE5N
	12000	76×140	0.20	7.8	ELXA161LGC123TEE0N		4700	76×125	0.20	13.9	ELXA401LGC472MEC5N
	15000	89×140	0.20	9.5	ELXA161LGC153TFE0N		6800	76×145	0.20	17.9	ELXA401LGC682MEE5N
	200	470	35×50	0.15	0.9		ELXA201LGB471TA50N	6800	89×125	0.20	17.2
560		35×80	0.15	1.0	ELXA201LGB561TA80N	8200	76×190	0.20	20.8	ELXA401LGC822MEK0N	
680		35×80	0.15	1.1	ELXA201LGB681TA80N	8200	89×145	0.20	20.1	ELXA401LGC822MFE5N	
820		35×80	0.15	1.3	ELXA201LGB821TA80N	12000	89×190	0.20	27.4	ELXA401LGC123MFK0N	
1000		35×100	0.15	1.5	ELXA201LGB102TAA0N	18000	89×270	0.20	39.4	ELXA401LGC183MFT0N	
1200		35×120	0.15	1.7	ELXA201LGB122TAC0N	450	560	50×60	0.20	2.6	ELXA451LGC561MC60N
1500		35×120	0.15	1.9	ELXA201LGB152TAC0N		1000	50×85	0.20	4.0	ELXA451LGC102MC85N
1800		50×80	0.15	2.2	ELXA201LGC182TC80N		1200	50×105	0.20	4.8	ELXA451LGC122MCA5N
2200		50×100	0.15	2.7	ELXA201LGC222TCA0N		1800	50×125	0.20	6.4	ELXA451LGC182MCC5N
2700		50×120	0.15	3.2	ELXA201LGC272TCC0N		1800	63.5×85	0.20	6.2	ELXA451LGC182MD85N
3300		50×120	0.15	3.5	ELXA201LGC332TCC0N		2200	50×145	0.20	7.6	ELXA451LGC222MCE5N
3900		63.5×100	0.15	4.0	ELXA201LGC392TDA0N		2200	63.5×105	0.20	7.5	ELXA451LGC222MDA5N
4700		63.5×120	0.15	4.7	ELXA201LGC472TDC0N		2700	63.5×125	0.20	8.9	ELXA451LGC272MDC5N
5600	76×100	0.15	5.3	ELXA201LGC562TEA0N	2700		76×85	0.20	8.4	ELXA451LGC182MDE85N	
6800	76×120	0.15	6.3	ELXA201LGC682TEC0N	3300		63.5×145	0.20	10.6	ELXA451LGC332MDE5N	
8200	76×140	0.20	6.4	ELXA201LGC822TEE0N	3300		76×105	0.20	10.2	ELXA451LGC332MEA5N	
10000	89×140	0.20	7.7	ELXA201LGC103TFE0N	3900		76×125	0.20	11.9	ELXA451LGC392MEC5N	
250	330	35×50	0.15	0.7	ELXA251LGB331TA50N		4700	76×145	0.20	14.0	ELXA451LGC472MEE5N
	390	35×80	0.15	0.8	ELXA251LGB391TA80N	5600	89×125	0.20	14.2	ELXA451LGC562MFC5N	
	470	35×80	0.15	0.9	ELXA251LGB471TA80N	6800	76×190	0.20	17.3	ELXA451LGC682MEK0N	
	560	35×80	0.15	1.0	ELXA251LGB561TA80N	6800	89×145	0.20	16.7	ELXA451LGC682MFE5N	
	680	35×100	0.15	1.2	ELXA251LGB681TA80N	10000	89×190	0.20	22.8	ELXA451LGC103MFK0N	
	820	35×100	0.15	1.4	ELXA251LGB821TAA0N	15000	89×270	0.20	32.8	ELXA451LGC153MFT0N	
	1000	35×120	0.15	1.6	ELXA251LGB102TAC0N	500	470	50×60	0.20	2.4	ELXA501LGC471MC60N
	1200	50×80	0.15	1.8	ELXA251LGC122TC80N		820	50×85	0.20	3.6	ELXA501LGC821MC85N
	1500	50×100	0.15	2.2	ELXA251LGC152TCA0N		1000	50×105	0.20	4.4	ELXA501LGC102MCA5N
	1800	50×120	0.15	2.6	ELXA251LGC182TCC0N		1200	50×125	0.20	5.2	ELXA501LGC122MCC5N
	2200	50×120	0.15	2.8	ELXA251LGC222TCC0N		1200	63.5×85	0.20	5.0	ELXA501LGC122MD85N
	2700	63.5×100	0.15	3.3	ELXA251LGC272TDA0N		1500	50×145	0.20	6.3	ELXA501LGC152MCE5N
	3300	63.5×120	0.15	4.0	ELXA251LGC332TDC0N		1800	63.5×105	0.20	6.8	ELXA501LGC182MDA5N
3900	76×100	0.15	4.4	ELXA251LGC392TEA0N	2700		63.5×145	0.20	9.6	ELXA501LGC272MDE5N	
4700	76×120	0.15	5.2	ELXA251LGC472TEC0N	2700		76×105	0.20	9.2	ELXA501LGC272MEA5N	
5600	76×140	0.15	6.1	ELXA251LGC562TEE0N	3900		76×145	0.20	12.7	ELXA501LGC392MEE5N	
6800	89×140	0.15	7.4	ELXA251LGC682TFE0N	3900		89×125	0.20	11.9	ELXA501LGC392MFC5N	
350	820	50×60	0.20	3.3	ELXA351LGC821MC60N		6800	89×190	0.20	18.8	ELXA501LGC682MFK0N
	1500	50×85	0.20	5.2	ELXA351LGC152MC85N		10000	89×270	0.20	26.8	ELXA501LGC103MFT0N
	2200	50×105	0.20	7.0	ELXA351LGC222MCA5N	525	390	50×60	0.20	2.2	ELXA5C1LGC391MC60N
	2700	50×125	0.20	8.4	ELXA351LGC272MCC5N		680	50×85	0.20	3.3	ELXA5C1LGC681MC85N
	2700	63.5×85	0.20	8.1	ELXA351LGC272MD85N		1000	50×125	0.20	4.8	ELXA5C1LGC102MCC5N
	3300	50×145	0.20	9.9	ELXA351LGC332MCE5N		1500	63.5×105	0.20	6.2	ELXA5C1LGC152MDA5N
	3300	63.5×105	0.20	9.8	ELXA351LGC332MDA5N		1800	63.5×125	0.20	7.3	ELXA5C1LGC182MDC5N
	3900	63.5×125	0.20	11.5	ELXA351LGC392MDC5N		2200	63.5×145	0.20	8.6	ELXA5C1LGC222MDE5N
	3900	76×85	0.20	10.8	ELXA351LGC392ME85N		2200	76×105	0.20	8.3	ELXA5C1LGC222MEA5N
	5600	63.5×145	0.20	14.7	ELXA351LGC562MDE5N		2700	76×125	0.20	9.9	ELXA5C1LGC272MEC5N
	6800	76×125	0.20	16.8	ELXA351LGC682MEC5N		3300	76×145	0.20	11.7	ELXA5C1LGC332MEE5N
	8200	76×145	0.20	19.6	ELXA351LGC822MEE5N		4700	76×190	0.20	14.4	ELXA5C1LGC472MEK0N
	8200	89×125	0.20	18.9	ELXA351LGC822MFC5N		4700	89×145	0.20	13.9	ELXA5C1LGC472MFE5N
10000	76×190	0.20	23.0	ELXA351LGC103MEK0N	5600		89×190	0.20	17.1	ELXA5C1LGC562MFK0N	
10000	89×145	0.20	22.2	ELXA351LGC103MFE5N							
15000	89×190	0.20	30.6	ELXA351LGC153MFK0N							
22000	89×270	0.20	43.5	ELXA351LGC223MFT0N							



◆**RATED RIPPLE CURRENT MULTIPLIERS**

●Frequency Multipliers  
(10 to 250V<sub>dc</sub>)

Frequency (Hz)	50	120	300	1k	10k	50k
<b>10 to 50V<sub>dc</sub></b>	0.95	1.00	1.03	1.05	1.09	1.12
<b>63 to 80V<sub>dc</sub></b>	0.90	1.00	1.06	1.10	1.18	1.22
<b>100 to 250V<sub>dc</sub></b>	0.80	1.00	1.12	1.22	1.30	1.33

(350 to 525V<sub>dc</sub>)

Frequency (Hz)	50	120	300	1k	3k
<b>Coefficient</b>	0.8	1.0	1.2	1.5	1.6

Note : The endurance of capacitors is shorted with internal heating produced by ripple currents at the rate of halving the lifetime with every 5 to 10°C rise. When long life performance is requested in actual use, the rms ripple current has to be reduced. Also, for the LXA series capacitors (350 to 525V<sub>dc</sub> products), using them at operating voltage can extend their lifetime. For the detail, please contact a representative of Nippon Chemi-con.