

EL Series

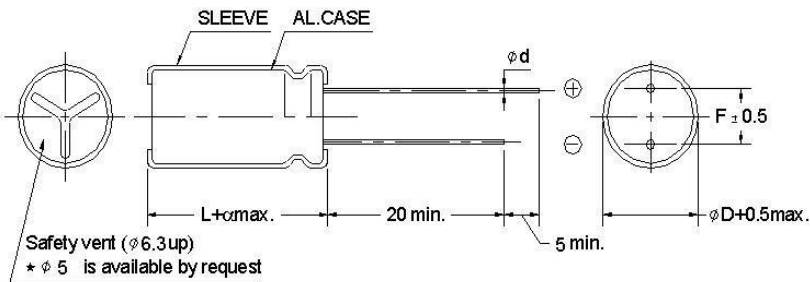
Long Life Assurance(长寿命), High Ripple Current (高纹波)

FEATURES

1.High temperature and long load life, 3000-8000 hours.

SPECIFICATIONS																	
Item	Performance Characteristics																
Operation Temperature Range	-40 to +105°C				-25 to +105°C												
Rated Working Voltage Range	6.3to 100V				160 to 450V												
Nominal Capacitance Range	0.1to 22000μF																
Capacitance Tolerance	±20%(120Hz,+20°C)																
Leakage Current	L≤0.03CV or 4 (μA) after 1 minute whichever is greater				L≤0.04CV +40 (μA) after 1 minute												
	Measured with rated working voltage at +20°C				Measured with rated working voltage at +20°C												
tan δ (120Hz,+20°C)	Working Voltage(v)	6.3	10	16	25	35	50	63	100								
	tan δ(max)	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08								
	Working Voltage(v)	160	200	250	315	350	400	450									
	tan δ(max)	0.20	0.20	0.20	0.25	0.25	0.25	0.25									
	For capacitance value>1000μF ,add 0.02 per another 1000μF																
Low Temperature Characteristics	Impedance ratio max. at 120 HZ																
	Working Voltage(V)	6.3	10	16	25	35	50	63	100								
	Z-25°C/Z+20°C	5	4	3	2	2	2	2	2								
	Z-40°C/Z+20°C	12	10	8	5	4	3	3	3								
	Working Voltage(V)	160	200	250	315	350	400	450									
Z-25°C/Z+20°C	3	3	4	4	4	6	15										
High Temperature Loading	Test conditions				Post test requirements at +20°C												
	<table border="1"> <tr> <td>φD</td> <td>5-6.3</td> <td>8~10</td> <td>12.5</td> </tr> <tr> <td>Load life</td> <td>3000h</td> <td>5000h</td> <td>8000h</td> </tr> </table>				φD	5-6.3	8~10	12.5	Load life	3000h	5000h	8000h	Leakage current :≤Initial specified value				
	φD	5-6.3	8~10	12.5													
Load life	3000h	5000h	8000h														
Duration : Ambient temp. : +105°C Applied voltage : Rated DC working voltage with rated ripple current				Cap. change :within ±25% of initial measured value Tan δ :≤200% of initial specified value													
Shelf Life	Test conditions				Post test requirements at +20°C												
	Duration : 1000 hours				Leakage current :≤Initial specified value												
	Ambient temp : +105°C				Cap. change :within ±25% of initial measured value												
	Applied voltage :(None)				Tan δ :≤200% of initial specified value												
Other	JIS C-5101 (IEC 60384)																

CASE SIZE TABLE



Φ	5	6.3	8	10	12.	16	18	22
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
φ	0.5			0.6		0.8		
α	(L<20) 1.5				(L≥20) 2.0			
β	(L<20) 0.5				(L≥20) 1.0			

RIPPLE CURRENT MULTIPLIER

Frequency coefficient

Rated voltage(V)	Cap(μF)	Coefficient	Freq(Hz)	50	120	300	1K	10K~
				~47	0.75	1.00	1.35	1.57
6.3-100		68~470		0.80	1.00	1.23	1.34	1.50
		≥560		0.85	1.00	1.10	1.13	1.15
		0.47~220		0.80	1.00	1.25	1.40	1.60
160-450		≥270		0.90	1.00	1.10	1.13	1.15

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STANDARD RATINGS									
Voltage(Code)		6.3V(0J)		10V(1A)		16V(1C)		25V(1E)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
4.7	475							5*11	180
10	106					5*11	180	5*11	180
22	226	5*11	180	5*11	180	5*11	180	5*11	180
33	336	5*11	230	5*11	230	5*11	230	5*11	230
47	476	5*11	280	5*11	280	5*11	280	5*11	280
100	107	5*11	320	5*11	320	6.3*11	355	6.3*11	410
220	227	6.3*11	380	6.3*11	380	8*12	410	8*12	445
330	337	6.3*11	380	8*12	410	8*12	448	10*12.5	488
470	477	8*12	670	8*12	695	10*12.5	729	10*16	754
1000	108	10*12.5	880	10*16	928	10*20	1043	12.5*20	1175
2200	228	12.5*20	1450	12.5*20	520	12.5*25	1586	16*25	1639
3300	338	12.5*20	1720	12.5*25	1785	16*25	1815	16*30	1960
4700	478	16*25	2185	16*25	2240	16*30	2287	18*35	2530
								22*30	2530
6800	688	16*25	2310	16*30	2375	18*35	2415	22*40	3216
						22*30	2510		
10000	109	16*30	2415	18*35	2458	18*40	3276		
				22*30	2532	22*35	2837		
12000	129	16*35	2536	18*35	2615	22*40	3757		
				22*30	3055				
15000	159	18*35	2910	18*40	3170				
		22*30	2980	22*35	3195				
18000	189	18*40	3130	22*40	3268				
		22*35	3175						
22000	229	22*40	3215						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ΦD xL(mm)

Voltage(Code)		35V (1V)		50V(1H)		63V(1J)		100V(2A)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104			5*11	1			5*11	4
0.22	224			5*11	3			5*11	6
0.33	334			5*11	4			5*11	7
0.47	474			5*11	8			5*11	9
1	105			5*11	14			5*11	18
2.2	225			5*11	22			5*11	23
3.3	335			5*11	33			5*11	37
4.7	475	5*11	30	5*11	41	5*11	44	5*11	44
10	106	5*11	44	5*11	59	5*11	65	6.3*11	67
22	226	5*11	74	6.3*11	99	6.3*11	96	8*12	121
33	336	5*11	88	6.3*11	127	8*12	160	10*12.5	183
47	476	6.3*11	132	6.3*11	146	8*12	191	10*16	243
100	107	8*12	220	8*12	252	10*12.5	276	12.5*20	435
220	227	10*12.5	374	10*16	560	10*20	554	16*25	837
330	337	10*16	512	10*20	756	12.5*20	757	16*25	1011
470	477	10*20	664	12.5*20	881	12.5*25	987	16*30	1179
1000	108	12.5*25	1241	16*25	1626	18*30	1843	18*40	2222
								22*35	2222
2200	228	16*30	1783	18*35	2212	18*40	2079		
				22*30	2212	22*35	2193		
3300	338	18*35	2274	22*40	2828				
		22*30	2274						
4700	478	18*40	2875						
		22*35	2726						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ΦD xL(mm)

EL Series

Long Life Assurance(长寿命), High Ripple Current (高纹波)

STANDARD RATINGS									
Voltage(Code)		160V (2C)		200V(2D)		220V(2N)		250V(2E)	
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.47	474	6.3*11	14	6.3*11	12	6.3*11	9		
1	105	6.3*11	21	6.3*11	18	6.3*11	19	6.3*11	20
2.2	225	6.3*11	31	6.3*11	27	8*12	35	8*12	33
3.3	335	8*12	45	8*12	39	8*12	38	10*12.5	51
4.7	475	8*12	57	10*12.5	61	8*12	42	10*16	61
10	106	10*16	88	10*16	88	10*16	100	10*20	88
22	226	10*20	133	10*20	138	10*20	168	12.5*25	182
33	336	10*20	175	10*20	150	12.5*20	210	16*25	220
47	476	10*20	237	12.5*20	250	12.5*20	301	16*30	316
100	107	12.5*25	429	16*20	400	16*25	531	18*40	537
150	157	16*25	500	16*25	600	18*25	550	18*40	697
						16*35	550		
220	227	18*25	830	18*30	680	18*40	633		
		16*30	855	16*35	723				
270	277	18*40	972	18*40	1039				
		20*35	972						
330	337	20*40	1083						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ΦD xL(mm)

STANDARD RATINGS									
Voltage(Code)		350V (2V)		400V(2G)		450V(2W)			
Cap. (μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current		
1	105	8*12	24	8*12	25	10*12.5	24		
2.2	225	8*12	38	10*12.5	38	10*16	34		
3.3	335	10*12.5	57	10*16	50	10*20	44		
4.7	475	10*12.5	61	10*16	63	10*20	58		
10	106	10*20	100	10*20	110	12.5*20	102		
22	226	12.5*20	182	16*20	206	16*20	180		
33	336	16*20	238	16*20	264	16*25	338		
47	476	18*25	361	18*20	365	18*25	354		
				16*25	365				

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ΦD xL(mm)